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Area Listing (all nodes)

Area (acres)	CN	Description (subcatchment-numbers)
3.160	30	Brush, Good, HSG A (1S, 3S, 7S, 8S, 25S, 26S, 28S)
41.120	30	Woods, Good, HSG A (1S, 2S, 3S, 7S, 8S, 24S, 25S, 26S, 27S, 28S)
2.400	35	easement (27S, 28S)
11.690	39	>75% Grass cover, Good, HSG A (17S, 18S, 24S, 33S)
1.250	54	Amenity area (34S)
2.240	98	Paved parking, HSG A (17S, 18S, 24S, 29S)
2.920	98	Paved roads w/curbs & sewers, HSG A (17S, 18S, 24S, 33S)
1.560	98	Roofs, HSG A (17S, 18S, 24S)
0.120	98	walk (33S)
66.460	39	TOTAL AREA

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Soil Listing (all nodes)

	Area	Soil	Subcatchment
(a	cres)	Group	Numbers
62	2.690	HSG A	15, 25, 35, 75, 85, 175, 185, 245, 255, 265, 275, 285, 295, 335
(0.000	HSG B	
(0.000	HSG C	
(0.000	HSG D	
;	3.770	Other	27S, 28S, 33S, 34S
6	6.460		TOTAL AREA

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Ground Covers (all nodes)

HSG-A (acres)	HSG-B (acres)	HSG-C (acres)	HSG-D (acres)	Other (acres)	Total (acres)	Ground Cover	Subcatchmer Numbers
11.690	0.000	0.000	0.000	0.000	11.690	>75% Grass cover, Good	17
							S,
							18
							S,
							24
							S,
							33
							S
0.000	0.000	0.000	0.000	1.250	1.250	Amenity area	34
0.040	0.000	0.000	0.000	0.000	0.040	B	S
2.240	0.000	0.000	0.000	0.000	2.240	Paved parking	17
							S,
							18
							S, 24
							S,
							29
							S
1.560	0.000	0.000	0.000	0.000	1.560	Roofs	17
							S,
							18
							S,
							24
							S
2.920	0.000	0.000	0.000	0.000	2.920	Paved roads w/curbs & sewers	17
							S,
							18
							S,
							24
							S,
							33
2.460	0.000	0.000	0.000	0.000	0.400	Brook Cond	S
3.160	0.000	0.000	0.000	0.000	3.160	Brush, Good	1S,
							3S,
							75,
							8S,
							25
							S,
							26
							S,
							28

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Ground Covers (all nodes) (continued)

 HSG-A (acres)	HSG-B (acres)	HSG-C (acres)	HSG-D (acres)	Other (acres)	Total (acres)	Ground Cover	Subcatchmer Numbers
41.120	0.000	0.000	0.000	0.000	41.120	Woods, Good	15,
							28,
							38,
							7S,
							8S,
							24
							S,
							25
							S,
							26
							S,
							27
							S,
							28
							S
0.000	0.000	0.000	0.000	2.400	2.400	easement	27
							S,
							28
							S
0.000	0.000	0.000	0.000	0.120	0.120	walk	33
							S
62.690	0.000	0.000	0.000	3.770	66.460	TOTAL AREA	

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Pipe Listing (all nodes)

Line#	Node Number	In-Invert (feet)	Out-Invert (feet)	Length (feet)	Slope (ft/ft)	n	Diam/Width (inches)	Height (inches)	Inside-Fill (inches)
1	4R	450.00	449.40	60.0	0.0100	0.013	36.0	0.0	0.0
2	9R	480.00	479.00	60.0	0.0167	0.013	24.0	0.0	0.0
3	11R	430.00	429.00	60.0	0.0167	0.013	144.0	72.0	0.0
4	13R	481.00	480.00	60.0	0.0167	0.013	24.0	0.0	0.0
5	15R	465.00	464.00	60.0	0.0167	0.013	96.0	48.0	0.0
6	19R	370.00	369.00	60.0	0.0167	0.013	168.0	120.0	0.0
7	22R	315.63	313.90	46.0	0.0376	0.013	24.0	0.0	0.0
8	31R	348.00	340.50	200.0	0.0375	0.024	15.0	0.0	0.0
9	20P	440.00	435.00	75.0	0.0667	0.013	12.0	0.0	0.0
10	30P	83.00	68.00	40.0	0.3750	0.013	12.0	0.0	0.0
11	36P	83.00	68.00	120.0	0.1250	0.013	12.0	0.0	0.0

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Time span=3.00-60.00 hrs, dt=0.03 hrs, 1901 points
Runoff by SCS TR-20 method, UH=SCS
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment 1S: Area 1A Runoff Area=0.620 ac 0.00% Impervious Runoff Depth=0.00"

Flow Length=280' Slope=0.1100 '/' Tc=13.4 min CN=30 Runoff=0.00 cfs 0.000 af

Subcatchment 2S: Area 1 Runoff Area=1.420 ac 0.00% Impervious Runoff Depth=0.00"

Flow Length=450' Slope=0.0330 '/' Tc=35.9 min CN=30 Runoff=0.00 cfs 0.000 af

Subcatchment 3S: Area 1B Runoff Area=5.230 ac 0.00% Impervious Runoff Depth=0.00"

Flow Length=1,050' Slope=0.0380 '/' Tc=65.9 min CN=30 Runoff=0.00 cfs 0.000 af

Subcatchment 7S: Area 4 Runoff Area=7.980 ac 0.00% Impervious Runoff Depth=0.00"

Flow Length=800' Slope=0.0250 '/' Tc=65.3 min CN=30 Runoff=0.00 cfs 0.000 af

Subcatchment 8S: Area 4A Runoff Area=2.150 ac 0.00% Impervious Runoff Depth=0.00"

Flow Length=600' Slope=0.0250 '/' Tc=51.9 min CN=30 Runoff=0.00 cfs 0.000 af

Subcatchment 17S: Area 2 Runoff Area=6.260 ac 33.39% Impervious Runoff Depth=0.30"

Tc=7.0 min CN=59 Runoff=0.92 cfs 0.158 af

Subcatchment 18S: Area 3 Runoff Area=5.270 ac 44.78% Impervious Runoff Depth=0.51"

Tc=8.8 min CN=65 Runoff=2.05 cfs 0.222 af

Subcatchment 24S: Area 18 Runoff Area=6.040 ac 27.15% Impervious Runoff Depth=0.19"

Tc=5.0 min CN=55 Runoff=0.42 cfs 0.098 af

Subcatchment 25S: Area 9 Runoff Area=5.380 ac 0.00% Impervious Runoff Depth=0,00"

Flow Length=850' Slope=0.0600 '/' Tc=44.3 min CN=30 Runoff=0.00 cfs 0.000 af

Subcatchment 26S: Area 5 Runoff Area=19.250 ac 0.00% Impervious Runoff Depth=0.00"

Flow Length=1,600' Slope=0.0140 '/' Tc=152.0 min CN=30 Runoff=0.00 cfs 0.000 af

Subcatchment 27S: Area 8 Runoff Area=2.890 ac 0.00% Impervious Runoff Depth=0.00"

Flow Length=550' Slope=0.1750'/' Tc=16.7 min CN=33 Runoff=0.00 cfs 0.000 af

Subcatchment 28S: Area 6 Runoff Area=1.670 ac 0.00% Impervious Runoff Depth=0.00"

Flow Length=350' Slope=0.0800 '/' Tc=17.2 min CN=33 Runoff=0.00 cfs 0.000 af

Subcatchment 29S: Area 7b Runoff Area=0.300 ac 100.00% Impervious Runoff Depth>2.76"

Tc=5.0 min CN=98 Runoff=0.90 cfs 0.069 af

Subcatchment 33S: Area 7a Runoff Area=0.750 ac 60.00% Impervious Runoff Depth=0.91"

Flow Length=650' Slope=0.0700 '/' Tc=10.2 min CN=74 Runoff=0.64 cfs 0.057 af

Subcatchment 34S: Area 7 Runoff Area=1.250 ac 0.00% Impervious Runoff Depth=0.17"

Tc=5.0 min CN=54 Runoff=0.07 cfs 0.018 af

Reach 4R: 36-inch culvert Avg. Flow Depth=0.00' Max Vel=0.00 fps Inflow=0.00 cfs 0.000 af

36.0" Round Pipe n=0.013 L=60.0' S=0.0100 '/' Capacity=66.70 cfs Outflow=0.00 cfs 0.000 af

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Reach 5R: Natural channel Avg. Flow Depth=0.00' Max Vel=0.00 fps Inflow=0.00 cfs 0.000 af

n=0.040 L=350.0' S=0.0269 '/' Capacity=34.73 cfs Outflow=0.00 cfs 0.000 af

Reach 6R: Natural Channel

Avg. Flow Depth=0.00' Max Vel=0.00 fps Inflow=0.00 cfs 0.000 af

n=0.040 L=450.0' S=0.0222 '/' Capacity=94.09 cfs Outflow=0.00 cfs 0.000 af

Reach 9R: 24-inch culvert Avg. Flow Depth=0.00' Max Vel=0.00 fps Inflow=0.00 cfs 0.000 af

24.0" Round Pipe n=0.013 L=60.0' S=0.0167 '/' Capacity=29.21 cfs Outflow=0.00 cfs 0.000 af

Reach 10R: Natural channel Avg. Flow Depth=0.00' Max Vel=0.00 fps Inflow=0.00 cfs 0.000 af

n=0.040 L=400.0' S=0.0975 '/' Capacity=30.73 cfs Outflow=0.00 cfs 0.000 af

Reach 11R: Box Culvert Avg. Flow Depth=0.00' Max Vel=0.00 fps Inflow=0.00 cfs 0.000 af

144.0" x 72.0" Box Pipe n=0.013 L=60.0' S=0.0167 '/' Capacity=1,686.63 cfs Outflow=0.00 cfs 0.000 af

Reach 12R: Natural Channel Avg. Flow Depth=0.00' Max Vel=0.00 fps Inflow=0.00 cfs 0.000 af

n=0.040 L=1,100.0' S=0.0536'/' Capacity=197.78 cfs Outflow=0.00 cfs 0.000 af

Reach 13R: 24-inch Culvert Avg. Flow Depth=0.00' Max Vel=0.00 fps Inflow=0.00 cfs 0.000 af

24.0" Round Pipe n=0.013 L=60.0' S=0.0167 '/' Capacity=29.21 cfs Outflow=0.00 cfs 0.000 af

Reach 14R: Natural Channel Avg. Flow Depth=0.00' Max Vel=0.00 fps Inflow=0.00 cfs 0.000 af

n=0.040 L=600.0' S=0.0233 '/' Capacity=63.38 cfs Outflow=0.00 cfs 0.000 af

Reach 15R: Box Culvert Avg. Flow Depth=0.00' Max Vel=0.00 fps Inflow=0.00 cfs 0.000 af

96.0" x 48.0" Box Pipe n=0.013 L=60.0' S=0.0167 '/' Capacity=572.06 cfs Outflow=0.00 cfs 0.000 af

Reach 16R: Natural Channel Avg. Flow Depth=0.00' Max Vel=0.00 fps Inflow=0.00 cfs 0.000 af

n=0.040 L=750.0' S=0.1187'/ Capacity=217.43 cfs Outflow=0.00 cfs 0.000 af

Reach 19R: Box Culvert Avg. Flow Depth=0.00' Max Vel=0.00 fps Inflow=0.00 cfs 0.000 af

168.0" x 120.0" Box Pipe n=0.013 L=60.0' S=0.0167 '/' Capacity=4,217.47 cfs Outflow=0.00 cfs 0.000 af

Reach 21R: Natural Channel Avg. Flow Depth=0.00' Max Vel=0.00 fps Inflow=0.00 cfs 0.000 af

n=0.040 L=850.0' S=0.0600'/' Capacity=264.68 cfs Outflow=0.00 cfs 0.000 af

Reach 22R: 24-inch Culvert at Henry Avg. Flow Depth=0.00' Max Vel=0.00 fps Inflow=0.00 cfs 0.000 af

24.0" Round Pipe n=0.013 L=46.0' S=0.0376 '/' Capacity=43.87 cfs Outflow=0.00 cfs 0.000 af

Reach 31R: Municipal Drain Avg. Flow Depth=0.26' Max Vel=3.46 fps Inflow=0.64 cfs 0.057 af

15.0" Round Pipe n=0.024 L=200.0' S=0.0375 '/' Capacity=6.78 cfs Outflow=0.63 cfs 0.057 af

Pond 20P: Basin 1 Peak Elev=442.23' Storage=16,564 cf Inflow=2.95 cfs 0.380 af

Outflow=0.00 cfs 0.000 af

Pond 23P: Basin 3 Peak Elev=380.38' Storage=4,271 cf Inflow=0.42 cfs 0.098 af

Outflow=0.00 cfs 0.000 af

Pond 30P: Amenity Area Parking Lot Basin Peak Elev=81.10' Storage=0.069 af Inflow=0.90 cfs 0.069 af

Outflow=0.00 cfs 0.000 af

Pond 36P: Amenity Area

Peak Elev=79.68' Storage=0.018 af Inflow=0.07 cfs 0.018 af Outflow=0.00 cfs 0.000 af

Total Runoff Area = 66.460 ac Runoff Volume = 0.622 af Average Runoff Depth = 0.11" 89.71% Pervious = 59.620 ac 10.29% Impervious = 6.840 ac

Summary for Subcatchment 1S: Area 1A

[45] Hint: Runoff=Zero

Runoff = 0.00 cfs @ 3.00 hrs, Volume= 0.000 af, Depth= 0.00"

_	Area	(ac)_	CN	Desc	ription			
	0.	050	30	Brus	h, Good, F	ISG A		
	0.	570_	30	Woo	ds, Good,	HSG A		
	0.	620	30	Weig	hted Aver	age		
	0.620 100.00% Pervious Area							
	_							
	Tc	Length		ope	Velocity	Capacity	Description	
_	(min)	(feet) (f	t/ft)_	(ft/sec)	(cfs)		
	13.4	280	0.1	100	0.35		Lag/CN Method,	

Summary for Subcatchment 2S: Area 1

[45] Hint: Runoff=Zero

Runoff = 0.00 cfs

0.00 cfs @ 3.00 hrs, Volume=

0.000 af, Depth= 0.00"

_	Area	(ac)	CN	Desc	ription		
	1.	420	30	Woo	ds, Good,	HSG A	
	1.	420		100.0	00% Pervi	ous Area	
	_					_	
	Tc	Length					Description
_	<u>(min)</u>	(feet)) (ft/ft)	(ft/sec)	(cfs)	
	35.9	450	0.0	330	0.21		Lag/CN Method,

Summary for Subcatchment 3S: Area 1B

[45] Hint: Runoff=Zero

Runoff = 0.00 cfs @ 3.00 hrs, Volume= 0.000 af, Depth= 0.00"

	Area	(ac)_ C	N Des	cription			
	0.	220	30 Brus	sh, Good, H	HSG A		
	5.	010	<u> </u>	ds, Good,	HSG A		
	5.	230	30 Wei	ghted Aver	age		
	5.	230	100.	.00% Pervi	ous Area		
	Tc	Length	Slope	Velocity	Capacity	Description	
_	(min)	(feet)	(ft/ft)	(ft/sec)	(cfs)		
	65.9	1,050	0.0380	0.27		Lag/CN Method,	

Summary for Subcatchment 7S: Area 4

[45] Hint: Runoff=Zero

Runoff = 0.00 cfs

0.00 cfs @ 3.00 hrs, Volume=

0.000 af, Depth= 0.00"

a (ac)	CI	V Desc	cription		
0.420	30) Brus	h, Good, F	ISG A	
7.560	30) Woo	ds, Good,	HSG A	
7.980	30) Weig	hted Aver	age	-
7.980		100.	00% Pervi	ous Area	
c Leng	gth	Slope	Velocity	Capacity	Description
) (fe	et)	(ft/ft)	(ft/sec)	(cfs)	
3 8	00	0.0250	0.20		Lag/CN Method,
	0.420 7.560 7.980 7.980 C Leng	0.420 30 7.560 30 7.980 30 7.980 C Length (feet)	0.420 30 Brus 7.560 30 Woo 7.980 30 Weig 7.980 100. c Length Slope) (feet) (ft/ft)	0.420 30 Brush, Good, F 7.560 30 Woods, Good, 7.980 30 Weighted Aver 7.980 100.00% Pervi	0.420 30 Brush, Good, HSG A 7.560 30 Woods, Good, HSG A 7.980 30 Weighted Average 7.980 100.00% Pervious Area C Length Slope Velocity Capacity (feet) (ft/ft) (ft/sec) (cfs)

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Summary for Subcatchment 8S: Area 4A

[45] Hint: Runoff=Zero

0.00 cfs @ 3.00 hrs, Volume=

0.000 af, Depth= 0.00"

_	Area	(ac) C	N Des	cription				
	0.	060 3	30 Brus	sh, Good, I	ISG A		-	
	2.	090 3	30 Wo c	ods, Good,	HSG A			
	2.	150 3	30 Wei	ghted Aver	age	-	_	
	2.	150	100.	00% Pervi	ous Area			
_	Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description		
	51.9	600	0.0250	0.19		Lag/CN Method		

Summary for Subcatchment 17S: Area 2

Runoff = 0.92 cfs @ 12.27 hrs, Volume= 0.158 af, Depth= 0.30"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 3.00-60.00 hrs, dt= 0.03 hrs Type III 24-hr 2-Year Rainfall=3.00"

_	Area	(ac)	CN	Desc	<u>cription</u>									
	4.	170	39	>759	>75% Grass cover, Good, HSG A									
	0.	810	98	Pave	ed roads w	/curbs & se	sewers, HSG A							
	0.660 98 Paved parking, HSG A													
_	0.	620	98	Roof	s, HSG A									
	6.	260	59	Weig	hted Aver	age	-							
	4.	170		66.6	1% Pervio	us Area								
	2.	090		33.3	9% Imperv	vious Area								
	Tc	Leng		Slope	Velocity	Capacity	•							
_	(min)	(fee	et)	(ft/ft)	(ft/sec)	(cfs)	<u> </u>							
	7.0						Divert Future							

7.0

Direct Entry,

Summary for Subcatchment 18S: Area 3

Runoff = 2.05 cfs @ 12.16 hrs, Volume= 0.222 af, Depth= 0.51"

Area	(ac)	CN	Desc	ription			_	
2.	910	39	>75%	6 Grass co	over, Good	, HSG A		
1.	020	98	Pave	ed roads w	/curbs & se	ewers, HSG A		
0.	790	98	Pave	ed parking,	HSG A			
0.	550	98	Roof	s, HSG A				
5.	270	65	Weig	hted Aver	age		-	
2.	910		55.2	2% Pervio	us Area			
2.	360		44.7	8% Imperv	ious Area			
Тс	Leng		Slope	Velocity	Capacity	Description		
(min)	(fee	<u>t)</u>	_(ft/ft)	(ft/sec)	(cfs)			
8.8						Direct Entry,		

Summary for Subcatchment 24S: Area 18

Runoff = 0.42 cfs @ 12.36 hrs, Volume= 0.098 af, Depth= 0.19"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 3.00-60.00 hrs, dt= 0.03 hrs Type III 24-hr 2-Year Rainfall=3.00"

_	Area	(ac)	CN	Desc	Description							
	4.	4.310 39 >75% Grass cover, Good, HSG A										
0.760 98 Paved roads w/curbs & sewers, HSG A												
0.490 98 Paved parking, HSG A												
	0.	390	98	Roof	s, HSG A							
_	0.	090	30	Woo	ds, Good,	HSG A						
	6.	040	55	Weig	hted Aver	age						
	4.	400		72.8	72.85% Pervious Area							
	1.	640		27.15% Impervious Area								
	Tc	Leng	th	Slope	Velocity	Capacity	Description					
_	(min)	(fee	et)	(ft/ft)	(ft/sec)	(cfs)						
	5.0						Direct Entry					

5.0

Direct Entry,

Summary for Subcatchment 25S: Area 9

[45] Hint: Runoff=Zero

Runoff

0.00 cfs @ 3.00 hrs, Volume=

0.000 af, Depth= 0.00"

	Area	(ac) (N Des	cription			
	0.	030	30 Bru	sh, Good, I	HSG A		
_	5.	350	30 Wo	ods, Good,	HSG A		
	5.380 30 Weighted Average						
	5.	380	100	.00% Pervi	ous Area		
	Tc	Length	Slope	Velocity	Capacity	Description	
_	(min)	(feet)	(ft/ft)	(ft/sec)	(cfs)		
	44.3	850	0.0600	0.32		Lag/CN Method,	

Summary for Subcatchment 26S: Area 5

[45] Hint: Runoff=Zero

Runoff =

0.00 cfs @ 3.00 hrs, Volume=

0.000 af, Depth= 0.00"

_	Area	(ac) C	N Des	cription		
	1.	890 3	30 Brus	h, Good, F	ISG A	
_	17.	360 3	30 Woo	ds, Good,	HSG A	
	19.	250	30 Wei	ghted Aver	age	
	19.	250	100.	00% Pervi	ous Area	
	Tc	Length	Slope	Velocity	Capacity	Description
	(min)	(feet)	(ft/ft)	(ft/sec)	(cfs)	
	152.0	1,600	0.0140	0.18		Lag/CN Method,

Summary for Subcatchment 27S: Area 8

[45] Hint: Runoff=Zero

Runoff = 0.00 cfs @ 3.00 hrs, Volume= 0.000 af, Depth= 0.00"

_	Area	(ac)	CN	Desc	ription		
	1.350 30 Woods, Good, HSG A					HSG A	
*	1.	540	35	ease	ment		
	2.	2.890 33 Weighted Averag				age	
	2.890 100.00% Pervious Area						
	Tc	Length	n S	lope	Velocity	Capacity	Description
_	(min)	(feet) ((ft/ft)	(ft/sec)	(cfs)	
	16.7	550	0.1	1750	0.55		Lag/CN Method.

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Summary for Subcatchment 28S: Area 6

[45] Hint: Runoff=Zero

Runoff

0.00 cfs @ 3.00 hrs, Volume=

0.000 af, Depth= 0.00"

	Area	(ac)	CN	Desc	ription			
	0.	490	30	Brus	h, Good, F	ISG A		
	0.320 30 Woods, Good, HSG A				ds, Good,	HSG A		
*	0.	860	35	ease	ment			
	1.670 33 Weighted Average					age		
	1.670 100.00% Pervious Area							
	Tc	Lengtl	٦	Slope	Velocity	Capacity	Description	
_	(min)	(feet)	(ft/ft)	(ft/sec)	(cfs)		
	17.2	350	0 0	.0800	0.34		Lag/CN Method,	

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Summary for Subcatchment 29S: Area 7b

Runoff

0.90 cfs @ 12.07 hrs, Volume=

0.069 af, Depth> 2.76"

	Area	(ac)	CN	Desc	cription				
0.300 98 Paved parking, HSG A									
	0.300 100.00% Impervious Area								
	Tc	Lena	ıth .	Slope	Velocity	Capacity	Description		
	(min)	(fee		(ft/ft)	(ft/sec)	(cfs)	•		
_	5.0						Direct Entry.		

Summary for Subcatchment 33S: Area 7a

Runoff = 0.64 cfs @ 12.16 hrs, Volume= 0.057 af, Depth= 0.91"

_	Area	(ac)	<u> </u>	Desc	ription			_		
	0.	330	98	Pave	d roads w	/curbs & se	ewers, HSG A			
*	0.	120	98	walk						
_	0.	300	39	>75%	>75% Grass cover, Good, HSG A					
	0.									
	0.	300		40.00	0% Pervio	us Area				
	0.450 60.00% Impervious Area									
	Tc	Length		Slope	Velocity	Capacity	Description			
_	<u>(min)</u>	(feet) (<u>(ft/ft)</u>	(ft/sec)	(cfs)		_		
	10.2	650	0.0	0700	1.07		Lag/CN Method,			

Summary for Subcatchment 34S: Area 7

Runoff = 0.07 cfs @ 12.38 hrs, Volume= 0.018 af, Depth= 0.17"

	Area	(ac)	CN	Desc	cription		
4	1.	250	54	Ame	nity area		
	1.250			100.	00% Pervi	ous Area	
		Lengt		•			Description
-	(min) 5.0	(fee	:()	(ft/ft)	(ft/sec)	(cfs)	Direct Entry.

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Dags 25

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Summary for Reach 4R: 36-inch culvert

[52] Hint: Inlet/Outlet conditions not evaluated

Inflow Area = 0.620 ac, 0.00% Impervious, Inflow Depth = 0.00" for 2-Year event

Inflow = 0.00 cfs @ 3.00 hrs, Volume= 0.000 af

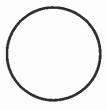
Outflow = 0.00 cfs @ 3.00 hrs, Volume= 0.000 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 3.00-60.00 hrs, dt= 0.03 hrs

Max. Velocity= 0.00 fps, Min. Travel Time= 0.0 min Avg. Velocity = 0.00 fps, Avg. Travel Time= 0.0 min

Peak Storage= 0 cf @ 3.00 hrs Average Depth at Peak Storage= 0.00' Bank-Full Depth= 3.00' Flow Area= 7.1 sf, Capacity= 66.70 cfs

36.0" Round Pipe n= 0.013 Length= 60.0' Slope= 0.0100 '/' Inlet Invert= 450.00', Outlet Invert= 449.40'



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Summary for Reach 5R: Natural channel

Inflow Area = 0.620 ac, 0.00% Impervious, Inflow Depth = 0.00" for 2-Year event

Inflow = 0.00 cfs @ 3.00 hrs, Volume= 0.000 af

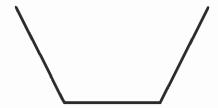
Outflow = 0.00 cfs @ 3.00 hrs, Volume= 0.000 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 3.00-60.00 hrs, dt= 0.03 hrs

Max. Velocity= 0.00 fps, Min. Travel Time= 0.0 min Avg. Velocity = 0.00 fps, Avg. Travel Time= 0.0 min

Peak Storage= 0 cf @ 3.00 hrs Average Depth at Peak Storage= 0.00' Bank-Full Depth= 2.00' Flow Area= 6.0 sf, Capacity= 34.73 cfs

2.00' x 2.00' deep channel, n= 0.040 Earth, cobble bottom, clean sides Side Slope Z-value= 0.5 '/' Top Width= 4.00' Length= 350.0' Slope= 0.0269 '/' Inlet Invert= 449.40', Outlet Invert= 440.00'



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Summary for Reach 6R: Natural Channel

Inflow Area = 10.020 ac, 0.00% Impervious, Inflow Depth = 0.00" for 2-Year event

Inflow = 0.00 cfs @ 3.00 hrs, Volume= 0.000 af

Outflow = 0.00 cfs @ 3.00 hrs, Volume= 0.000 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 3.00-60.00 hrs, dt= 0.03 hrs

Max. Velocity= 0.00 fps, Min. Travel Time= 0.0 min Avg. Velocity = 0.00 fps, Avg. Travel Time= 0.0 min

Peak Storage= 0 cf @ 3.00 hrs Average Depth at Peak Storage= 0.00' Bank-Full Depth= 2.00' Flow Area= 14.0 sf, Capacity= 94.09 cfs

6.00' x 2.00' deep channel, n= 0.040 Side Slope Z-value= 0.5 '/' Top Width= 8.00' Length= 450.0' Slope= 0.0222 '/' Inlet Invert= 440.00', Outlet Invert= 430.00'

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Summary for Reach 9R: 24-inch culvert

[52] Hint: Inlet/Outlet conditions not evaluated

Inflow Area = 1.420 ac, 0.00% Impervious, Inflow Depth = 0.00" for 2-Year event

Inflow = 0.00 cfs @ 3.00 hrs, Volume= 0.000 af

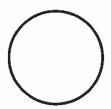
Outflow = 0.00 cfs @ 3.00 hrs, Volume= 0.000 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 3.00-60.00 hrs, dt= 0.03 hrs

Max. Velocity= 0.00 fps, Min. Travel Time= 0.0 min Avg. Velocity = 0.00 fps, Avg. Travel Time= 0.0 min

Peak Storage= 0 cf @ 3.00 hrs Average Depth at Peak Storage= 0.00' Bank-Full Depth= 2.00' Flow Area= 3.1 sf, Capacity= 29.21 cfs

24.0" Round Pipe n= 0.013 Length= 60.0' Slope= 0.0167 '/' Inlet Invert= 480.00', Outlet Invert= 479.00'



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Summary for Reach 10R: Natural channel

Inflow Area = 1.420 ac, 0.00% Impervious, Inflow Depth = 0.00" for 2-Year event

Inflow = 0.00 cfs @ 3.00 hrs, Volume= 0.000 af

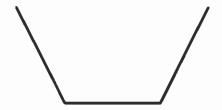
Outflow = 0.00 cfs @ 3.00 hrs, Volume= 0.000 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 3.00-60.00 hrs, dt= 0.03 hrs

Max. Velocity= 0.00 fps, Min. Travel Time= 0.0 min Avg. Velocity = 0.00 fps, Avg. Travel Time= 0.0 min

Peak Storage= 0 cf @ 3.00 hrs Average Depth at Peak Storage= 0.00' Bank-Full Depth= 1.50' Flow Area= 3.4 sf, Capacity= 30.73 cfs

1.50' x 1.50' deep channel, n= 0.040 Side Slope Z-value= 0.5 '/' Top Width= 3.00' Length= 400.0' Slope= 0.0975 '/' Inlet Invert= 479.00', Outlet Invert= 440.00'



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Summary for Reach 11R: Box Culvert

[52] Hint: Inlet/Outlet conditions not evaluated

Inflow Area = 10.020 ac, 0.00% Impervious, Inflow Depth = 0.00" for 2-Year event

Inflow = 0.00 cfs @ 3.00 hrs, Volume= 0.000 af

Outflow = 0.00 cfs @ 3.00 hrs, Volume= 0.000 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 3.00-60.00 hrs, dt= 0.03 hrs

Max. Velocity= 0.00 fps, Min. Travel Time= 0.0 min Avg. Velocity = 0.00 fps, Avg. Travel Time= 0.0 min

Peak Storage= 0 cf @ 3.00 hrs Average Depth at Peak Storage= 0.00' Bank-Full Depth= 6.00' Flow Area= 72.0 sf. Capacity= 1.686.63 cfs

144.0" W x 72.0" H Box Pipe n= 0.013 Length= 60.0' Slope= 0.0167 '/' Inlet Invert= 430.00', Outlet Invert= 429.00'



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Summary for Reach 12R: Natural Channel

[62] Hint: Exceeded Reach 16R OUTLET depth by 54.00' @ 3.00 hrs

Inflow Area = 48.180 ac, 9.24% Impervious, Inflow Depth = 0.00" for 2-Year event

Inflow = 0.00 cfs @ 3.00 hrs, Volume= 0.000 af

Outflow = 0.00 cfs @ 3.00 hrs, Volume= 0.000 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 3.00-60.00 hrs, dt= 0.03 hrs

Max. Velocity= 0.00 fps, Min. Travel Time= 0.0 min Avg. Velocity = 0.00 fps, Avg. Travel Time= 0.0 min

Peak Storage= 0 cf @ 3.00 hrs Average Depth at Peak Storage= 0.00' Bank-Full Depth= 2.00' Flow Area= 18.0 sf, Capacity= 197.78 cfs

8.00' x 2.00' deep channel, n= 0.040 Side Slope Z-value= 0.5 '/' Top Width= 10.00' Length= 1,100.0' Slope= 0.0536 '/' Inlet Invert= 429.00', Outlet Invert= 370.00'

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Summary for Reach 13R: 24-inch Culvert

[52] Hint: Inlet/Outlet conditions not evaluated

Inflow Area = 5.230 ac, 0.00% Impervious, Inflow Depth = 0.00" for 2-Year event

Inflow = 0.00 cfs @ 3.00 hrs, Volume= 0.000 af

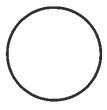
Outflow = 0.00 cfs @ 3.00 hrs, Volume= 0.000 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 3.00-60.00 hrs, dt= 0.03 hrs

Max. Velocity= 0.00 fps, Min. Travel Time= 0.0 min Avg. Velocity = 0.00 fps, Avg. Travel Time= 0.0 min

Peak Storage= 0 cf @ 3.00 hrs Average Depth at Peak Storage= 0.00' Bank-Full Depth= 2.00' Flow Area= 3.1 sf, Capacity= 29.21 cfs

24.0" Round Pipe n= 0.013 Length= 60.0' Slope= 0.0167 '/' Inlet Invert= 481.00', Outlet Invert= 480.00'



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Summary for Reach 14R: Natural Channel

Inflow Area = 5.230 ac, 0.00% Impervious, Inflow Depth = 0.00" for 2-Year event

Inflow = 0.00 cfs @ 3.00 hrs, Volume= 0.000 af

Outflow = 0.00 cfs @ 3.00 hrs, Volume= 0.000 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 3.00-60.00 hrs, dt= 0.03 hrs

Max. Velocity= 0.00 fps, Min. Travel Time= 0.0 min Avg. Velocity = 0.00 fps, Avg. Travel Time= 0.0 min

Peak Storage= 0 cf @ 3.00 hrs Average Depth at Peak Storage= 0.00' Bank-Full Depth= 2.00' Flow Area= 10.0 sf, Capacity= 63.38 cfs

4.00' x 2.00' deep channel, n= 0.040 Side Slope Z-value= 0.5 '/' Top Width= 6.00' Length= 600.0' Slope= 0.0233 '/' Inlet Invert= 479.00', Outlet Invert= 465.00'



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Summary for Reach 15R: Box Culvert

[52] Hint: Inlet/Outlet conditions not evaluated

Inflow Area = 7.380 ac, 0.00% Impervious, Inflow Depth = 0.00" for 2-Year event

Inflow = 0.00 cfs @ 3.00 hrs, Volume= 0.000 af

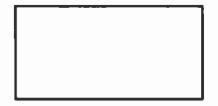
Outflow = 0.00 cfs @ 3.00 hrs, Volume= 0.000 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 3.00-60.00 hrs, dt= 0.03 hrs

Max. Velocity= 0.00 fps, Min. Travel Time= 0.0 min Avg. Velocity = 0.00 fps, Avg. Travel Time= 0.0 min

Peak Storage= 0 cf @ 3.00 hrs Average Depth at Peak Storage= 0.00' Bank-Full Depth= 4.00' Flow Area= 32.0 sf, Capacity= 572.06 cfs

96.0" W x 48.0" H Box Pipe n= 0.013 Length= 60.0' Slope= 0.0167 '/' Inlet Invert= 465.00', Outlet Invert= 464.00'



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Summary for Reach 16R: Natural Channel

Inflow Area = 7.380 ac, 0.00% Impervious, Inflow Depth = 0.00" for 2-Year event

Inflow = 0.00 cfs @ 3.00 hrs. Volume= 0.000 af

Outflow = 0.00 cfs @ 3.00 hrs, Volume= 0.000 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 3.00-60.00 hrs, dt= 0.03 hrs

Max. Velocity= 0.00 fps, Min. Travel Time= 0.0 min Avg. Velocity = 0.00 fps, Avg. Travel Time= 0.0 min

Peak Storage= 0 cf @ 3.00 hrs Average Depth at Peak Storage= 0.00' Bank-Full Depth= 2.00' Flow Area= 14.0 sf, Capacity= 217.43 cfs

6.00' x 2.00' deep channel, n= 0.040 Side Slope Z-value= 0.5 '/' Top Width= 8.00' Length= 750.0' Slope= 0.1187 '/' Inlet Invert= 464.00', Outlet Invert= 375.00'

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Summary for Reach 19R: Box Culvert

[52] Hint: Inlet/Outlet conditions not evaluated

Inflow Area = 48.180 ac, 9.24% Impervious, Inflow Depth = 0.00" for 2-Year event

Inflow = 0.00 cfs @ 3.00 hrs, Volume= 0.000 af

Outflow = 0.00 cfs @ 3.00 hrs, Volume= 0.000 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 3.00-60.00 hrs, dt= 0.03 hrs

Max. Velocity= 0.00 fps, Min. Travel Time= 0.0 min Avg. Velocity = 0.00 fps, Avg. Travel Time= 0.0 min

Peak Storage= 0 cf @ 3.00 hrs Average Depth at Peak Storage= 0.00' Bank-Full Depth= 10.00' Flow Area= 140.0 sf, Capacity= 4,217.47 cfs

168.0" W x 120.0" H Box Pipe n= 0.013 Length= 60.0' Slope= 0.0167 '/' Inlet Invert= 370.00', Outlet Invert= 369.00'



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Summary for Reach 21R: Natural Channel

Inflow Area = 59.600 ac, 10.22% Impervious, Inflow Depth = 0.00" for 2-Year event

Inflow = 0.00 cfs @ 3.00 hrs, Volume= 0.000 af

Outflow = 0.00 cfs @ 3.00 hrs, Volume= 0.000 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 3.00-60.00 hrs, dt= 0.03 hrs

Max. Velocity= 0.00 fps, Min. Travel Time= 0.0 min Avg. Velocity = 0.00 fps, Avg. Travel Time= 0.0 min

Peak Storage= 0 cf @ 3.00 hrs Average Depth at Peak Storage= 0.00' Bank-Full Depth= 2.00' Flow Area= 22.0 sf, Capacity= 264.68 cfs

10.00' x 2.00' deep channel, n= 0.040 Side Slope Z-value= 0.5 '/' Top Width= 12.00' Length= 850.0' Slope= 0.0600 '/' Inlet Invert= 369.00', Outlet Invert= 318.00'

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Summary for Reach 22R: 24-inch Culvert at Henry Street

[52] Hint: Inlet/Outlet conditions not evaluated

Inflow Area = 59.600 ac, 10.22% Impervious, Inflow Depth = 0.00" for 2-Year event

Inflow = 0.00 cfs @ 3.00 hrs, Volume= 0.000 af

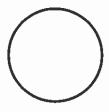
Outflow = 0.00 cfs @ 3.00 hrs, Volume= 0.000 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 3.00-60.00 hrs, dt= 0.03 hrs

Max. Velocity= 0.00 fps, Min. Travel Time= 0.0 min Avg. Velocity = 0.00 fps, Avg. Travel Time= 0.0 min

Peak Storage= 0 cf @ 3.00 hrs Average Depth at Peak Storage= 0.00' Bank-Full Depth= 2.00' Flow Area= 3.1 sf, Capacity= 43.87 cfs

24.0" Round Pipe n= 0.013 Length= 46.0' Slope= 0.0376 '/' Inlet Invert= 315.63', Outlet Invert= 313.90'



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Summary for Reach 31R: Municipal Drain

[52] Hint: Inlet/Outlet conditions not evaluated

[81] Warning: Exceeded Pond 30P by 269.00' @ 3.00 hrs [81] Warning: Exceeded Pond 36P by 269.26' @ 12.15 hrs

Inflow Area = 3.970 ac, 18.89% Impervious, Inflow Depth = 0.17" for 2-Year event

Inflow = 0.64 cfs @ 12.16 hrs, Volume= 0.057 af

Outflow = 0.63 cfs @ 12.19 hrs, Volume= 0.057 af, Atten= 1%, Lag= 1.8 min

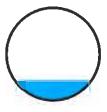
Routing by Stor-Ind+Trans method, Time Span= 3.00-60.00 hrs, dt= 0.03 hrs

Max. Velocity= 3.46 fps, Min. Travel Time= 1.0 min Avg. Velocity = 1.40 fps, Avg. Travel Time= 2.4 min

Peak Storage= 37 cf @ 12.17 hrs Average Depth at Peak Storage= 0.26'

Bank-Full Depth= 1.25' Flow Area= 1.2 sf, Capacity= 6.78 cfs

15.0" Round Pipe n= 0.024 Length= 200.0' Slope= 0.0375 '/' Inlet Invert= 348.00', Outlet Invert= 340.50'



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Summary for Pond 20P: Basin 1

Inflow Area = 11.530 ac, 38.59% Impervious, Inflow Depth = 0.40" for 2-Year event

Inflow = 2.95 cfs @ 12.16 hrs, Volume= 0.380 af

Outflow = 0.00 cfs @ 3.00 hrs, Volume= 0.000 af, Atten= 100%, Lag= 0.0 min

Primary = 0.00 cfs @ 3.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 3.00-60.00 hrs, dt= 0.03 hrs Peak Elev= 442.23' @ 24.54 hrs Surf.Area= 9,518 sf Storage= 16,564 cf

Plug-Flow detention time= (not calculated: initial storage excedes outflow)

Center-of-Mass det. time= (not calculated: no outflow)

Volume	Invert	Avail.Stor	rage Storage Description		Description		
#1	440.00' 102,70		00 cf C u	ustom \$	Stage Data (Pr	ismatic) Listed below (Recalc)	
Elevation (feet)	S	urf.Area (sq-ft)	Inc.Sto		Cum.Store (cubic-feet)		
440.00		5,335		0	0		
448.00		20,340		700	102,700		
Device R	outing	Invert	Outlet [Devices			
•			10.0' long x 10.0' breadth Broad-Crested Rectangular Weir				

_				
	#1	Primary	447.00'	10.0' long x 10.0' breadth Broad-Crested Rectangular Weir
				Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60
				Coef. (English) 2.49 2.56 2.70 2.69 2.68 2.69 2.67 2.64
	#2	Primary	440.00'	12.0" Round Culvert L= 75.0' Ke= 0.500
		-		Inlet / Outlet Invert= 440.00' / 435.00' S= 0.0667 '/' Cc= 0.900
				n= 0.013, Flow Area= 0.79 sf
	#3	Device 2	446.00'	6.0" Vert. Orifice/Grate C= 0.600
	#4	Device 2	447.00'	24.0" x 24.0" Horiz. Orifice/Grate C= 0.600
				Limited to weir flow at low heads

Primary OutFlow Max=0.00 cfs @ 3.00 hrs HW=440.00' (Free Discharge)

-1=Broad-Crested Rectangular Weir (Controls 0.00 cfs)

-2=Culvert (Controls 0.00 cfs)

3=Orifice/Grate (Controls 0.00 cfs)

-4=Orifice/Grate (Controls 0.00 cfs)

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Summary for Pond 23P: Basin 3

Inflow Area = 6.040 ac, 27.15% Impervious, Inflow Depth = 0.19" for 2-Year event

Inflow = 0.42 cfs @ 12.36 hrs, Volume= 0.098 af

Outflow = 0.00 cfs @ 3.00 hrs, Volume= 0.000 af, Atten= 100%, Lag= 0.0 min

Primary = 0.00 cfs @ 3.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 3.00-60.00 hrs, dt= 0.03 hrs Peak Elev= 380.38' @ 24.30 hrs Surf.Area= 11,517 sf Storage= 4,271 cf

Plug-Flow detention time= (not calculated: initial storage excedes outflow)

Center-of-Mass det. time= (not calculated: no outflow)

Volume	lnv	ert Ava	ail.Storage	Storage I	Description	
#1	380.0	00'	51,550 cf	Custom	Stage Data (Pris	matic) Listed below (Recalc)
Elevatio		Surf.Area (sq-ft)	****	c.Store ic-feet)	Cum.Store (cubic-feet)	
380.0 384.0	=	11,200 14,575		0 51,550	0 51,550	
Device	Routing	li	nvert Out	let Devices	;	
#1	Primary	38)' long Sha Crest Heig		angular Weir 2 End Contraction(s)

Primary OutFlow Max=0.00 cfs @ 3.00 hrs HW=380.00' (Free Discharge)
1=Sharp-Crested Rectangular Weir (Controls 0.00 cfs)

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Summary for Pond 30P: Amenity Area Parking Lot Basin

[82] Warning: Early inflow requires earlier time span

Inflow Area = 0.300 ac,100.00% Impervious, Inflow Depth > 2.76" for 2-Year event

Inflow 0.90 cfs @ 12.07 hrs, Volume= 0.069 af

Outflow 0.00 cfs @ 3.00 hrs, Volume= 0.000 af, Atten= 100%, Lag= 0.0 min =

Primary 0.00 cfs @ 3.00 hrs, Volume= = 0.000 af

Routing by Stor-Ind method, Time Span= 3.00-60.00 hrs, dt= 0.03 hrs Peak Elev= 81.10' @ 24.30 hrs Surf.Area= 0.056 ac Storage= 0.069 af

Plug-Flow detention time= (not calculated: initial storage excedes outflow)

Center-of-Mass det. time= (not calculated: no outflow)

Volume	Invert	Avail.Storage	Storage Description				
#1	79.00'	6.777 af	38.00'W x 54.00'L x 60.00'H Prismatoid Z=1.0				
			17.041 af Overall - 0.100 af Embedded = 16.942 af x 40.0% Voids				
#2	79.00'	0.100 af	57.0" D x 245.0'L Pipe Storage Inside #1				
		6.876 af	Total Available Storage				
Device	Routing	Invert Ou	ıtlet Devices				
#1	Primary	83.00' 12	.0" Round Culvert L= 40.0' Ke= 0.500				
		Inle	et / Outlet Invert= 83.00' / 68.00' S= 0.3750 '/' Cc= 0.900				
		n=	0.013, Flow Area= 0.79 sf				
#2	Primary	85.00' 24	.0" x 24.0" Horiz. Orifice/Grate				
		Lin	nited to weir flow at low heads				

Primary OutFlow Max=0.00 cfs @ 3.00 hrs HW=79.00' (Free Discharge)

-1=Culvert (Controls 0.00 cfs)

-2=Orifice/Grate (Controls 0.00 cfs)

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Summary for Pond 36P: Amenity Area

Inflow Area = 1.250 ac, 0.00% Impervious, Inflow Depth = 0.17" for 2-Year event

Inflow = 0.07 cfs @ 12.38 hrs, Volume= 0.018 af

Outflow = 0.00 cfs @ 3.00 hrs, Volume= 0.000 af, Atten= 100%, Lag= 0.0 min

Primary = 0.00 cfs @ 3.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 3.00-60.00 hrs, dt= 0.03 hrs Peak Elev= 79.68' @ 24.30 hrs Surf.Area= 0.057 ac Storage= 0.018 af

Plug-Flow detention time= (not calculated: initial storage excedes outflow)

Center-of-Mass det. time= (not calculated: no outflow)

Volume	Invert	Avail.Storage	Storage Description					
#1	79.00'	0.118 af	15.00'W x 150.00'L x 5.00'H Prismatoid Z=1.0					
#2	79.00'	0.061 af	0.357 af Overall - 0.061 af Embedded = 0.296 af x 40.0% Voids 57.0" D x 150.0'L Pipe Storage Inside #1					
0.179 af			Total Available Storage					
Device	Routing	Invert Ou	utlet Devices					
#1	Primary	83.00' 12	.0" Round Culvert L= 120.0' Ke= 0.500					
			Inlet / Outlet Invert= 83.00' / 68.00' S= 0.1250 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf					
#2	Primary		.0" x 24.0" Horiz. Orifice/Grate					

Primary OutFlow Max=0.00 cfs @ 3.00 hrs HW=79.00' (Free Discharge)

1=Culvert (Controls 0.00 cfs)

-2=Orifice/Grate (Controls 0.00 cfs)

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Time span=3.00-60.00 hrs, dt=0.03 hrs, 1901 points
Runoff by SCS TR-20 method, UH=SCS
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment 1S: Area 1A Runoff Area=0.620 ac 0.00% Impervious Runoff Depth=0.00"

Flow Length=280' Slope=0.1100 '/' Tc=13.4 min CN=30 Runoff=0.00 cfs 0.000 af

Subcatchment 2S: Area 1 Runoff Area=1.420 ac 0.00% Impervious Runoff Depth=0.00"

Flow Length=450' Slope=0.0330 '/' Tc=35.9 min CN=30 Runoff=0.00 cfs 0.000 af

Subcatchment 3S: Area 1B Runoff Area=5.230 ac 0.00% Impervious Runoff Depth=0.00"

Flow Length=1,050' Slope=0.0380 '/' Tc=65.9 min CN=30 Runoff=0.00 cfs 0.000 af

Subcatchment 7S: Area 4 Runoff Area=7.980 ac 0.00% Impervious Runoff Depth=0.00"

Flow Length=800' Slope=0.0250 '/' Tc=65.3 min CN=30 Runoff=0.00 cfs 0.000 af

Subcatchment 8S: Area 4A Runoff Area=2.150 ac 0.00% Impervious Runoff Depth=0.00"

Flow Length=600' Slope=0.0250 '/' Tc=51.9 min CN=30 Runoff=0.00 cfs 0.000 af

Subcatchment 17S: Area 2 Runoff Area=6.260 ac 33.39% Impervious Runoff Depth=0.96"

Tc=7.0 min CN=59 Runoff=5.64 cfs 0.502 af

Subcatchment 18S: Area 3 Runoff Area=5.270 ac 44.78% Impervious Runoff Depth=1.33"

Tc=8.8 min CN=65 Runoff=6.86 cfs 0.584 af

Subcatchment 24S: Area 18 Runoff Area=6.040 ac 27.15% Impervious Runoff Depth=0.74"

Tc=5.0 min CN=55 Runoff=3.93 cfs 0.374 af

Subcatchment 25S: Area 9 Runoff Area=5.380 ac 0.00% Impervious Runoff Depth=0.00"

Flow Length=850' Slope=0.0600 '/' Tc=44.3 min CN=30 Runoff=0.00 cfs 0.000 af

Subcatchment 26S: Area 5 Runoff Area=19.250 ac 0.00% Impervious Runoff Depth=0.00"

Flow Length=1,600' Slope=0.0140 '/' Tc=152.0 min CN=30 Runoff=0.00 cfs 0.000 af

Subcatchment 27S: Area 8 Runoff Area=2.890 ac 0.00% Impervious Runoff Depth=0.01"

Flow Length=550' Slope=0.1750 '/' Tc=16.7 min CN=33 Runoff=0.00 cfs 0.002 af

Subcatchment 28S: Area 6 Runoff Area=1.670 ac 0.00% Impervious Runoff Depth=0.01"

Flow Length=350' Slope=0.0800'/' Tc=17.2 min CN=33 Runoff=0.00 cfs 0.001 af

Subcatchment 29S: Area 7b Runoff Area=0.300 ac 100.00% Impervious Runoff Depth>4.24"

Tc=5.0 min CN=98 Runoff=1.36 cfs 0.106 af

Subcatchment 33S: Area 7a Runoff Area=0.750 ac 60.00% Impervious Runoff Depth=1.97"

Flow Length=650' Slope=0.0700 '/' Tc=10.2 min CN=74 Runoff=1.48 cfs 0.123 af

Subcatchment 34S: Area 7 Runoff Area=1.250 ac 0.00% Impervious Runoff Depth=0.69"

Tc=5.0 min CN=54 Runoff=0.72 cfs 0.072 af

Reach 4R: 36-inch culvert Avg. Flow Depth=0.00' Max Vel≈0.00 fps Inflow=0.00 cfs 0.000 af

36.0" Round Pipe n=0.013 L=60.0' S=0.0100 '/' Capacity=66.70 cfs Outflow=0.00 cfs 0.000 af

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Reach 5R: Natural channelAvg. Flow Depth=0.00' Max Vel=0.00 fps Inflow=0.00 cfs 0.000 af n=0.040 L=350.0' S=0.0269 '/' Capacity=34.73 cfs Outflow=0.00 cfs 0.000 af

Reach 6R: Natural ChannelAvg. Flow Depth=0.00' Max Vel=0.00 fps Inflow=0.00 cfs 0.000 af n=0.040 L=450.0' S=0.0222 '/' Capacity=94.09 cfs Outflow=0.00 cfs 0.000 af

Reach 9R: 24-inch culvert Avg. Flow Depth=0.00' Max Vel=0.00 fps Inflow=0.00 cfs 0.000 af 24.0" Round Pipe n=0.013 L=60.0' S=0.0167 '/' Capacity=29.21 cfs Outflow=0.00 cfs 0.000 af

Reach 10R: Natural channelAvg. Flow Depth=0.00' Max Vel=0.00 fps Inflow=0.00 cfs 0.000 af n=0.040 L=400.0' S=0.0975 '/' Capacity=30.73 cfs Outflow=0.00 cfs 0.000 af

Reach 11R: Box CulvertAvg. Flow Depth=0.00' Max Vel=0.00 fps Inflow=0.00 cfs 0.000 af 144.0" x 72.0" Box Pipe n=0.013 L=60.0' S=0.0167 '/' Capacity=1,686.63 cfs Outflow=0.00 cfs 0.000 af

Reach 12R: Natural ChannelAvg. Flow Depth=0.00' Max Vel=0.00 fps Inflow=0.00 cfs 0.000 af n=0.040 L=1,100.0' S=0.0536 '/' Capacity=197.78 cfs Outflow=0.00 cfs 0.000 af

Reach 13R: 24-inch Culvert

Avg. Flow Depth=0.00' Max Vel=0.00 fps Inflow=0.00 cfs 0.000 af 24.0" Round Pipe n=0.013 L=60.0' S=0.0167 '/' Capacity=29.21 cfs Outflow=0.00 cfs 0.000 af

Reach 14R: Natural Channel

Avg. Flow Depth=0.00' Max Vel=0.00 fps Inflow=0.00 cfs 0.000 af n=0.040 L=600.0' S=0.0233'/ Capacity=63.38 cfs Outflow=0.00 cfs 0.000 af

Reach 15R: Box CulvertAvg. Flow Depth=0.00' Max Vel=0.00 fps Inflow=0.00 cfs 0.000 af 96.0" x 48.0" Box Pipe n=0.013 L=60.0' S=0.0167 '/' Capacity=572.06 cfs Outflow=0.00 cfs 0.000 af

Reach 16R: Natural ChannelAvg. Flow Depth=0.00' Max Vel=0.00 fps Inflow=0.00 cfs 0.000 af n=0.040 L=750.0' S=0.1187 '/' Capacity=217.43 cfs Outflow=0.00 cfs 0.000 af

Reach 19R: Box CulvertAvg. Flow Depth=0.00' Max Vel=0.00 fps Inflow=0.00 cfs 0.000 af 168.0" x 120.0" Box Pipe n=0.013 L=60.0' S=0.0167 '/' Capacity=4,217.47 cfs Outflow=0.00 cfs 0.000 af

Reach 21R: Natural Channel

Avg. Flow Depth=0.00' Max Vel=0.00 fps Inflow=0.00 cfs 0.000 af n=0.040 L=850.0' S=0.0600 '/' Capacity=264.68 cfs Outflow=0.00 cfs 0.000 af

Reach 22R: 24-inch Culvert at Henry Avg. Flow Depth=0.00' Max Vel=0.00 fps Inflow=0.00 cfs 0.000 af 24.0" Round Pipe n=0.013 L=46.0' S=0.0376 '/' Capacity=43.87 cfs Outflow=0.00 cfs 0.000 af

Reach 31R: Municipal Drain

Avg. Flow Depth=0.40' Max Vel=4.41 fps Inflow=1.48 cfs 0.125 af 15.0" Round Pipe n=0.024 L=200.0' S=0.0375 '/' Capacity=6.78 cfs Outflow=1.46 cfs 0.125 af

Pond 20P: Basin 1 Peak Elev=444.81' Storage=47,301 cf Inflow=12.47 cfs 1.086 af Outflow=0.00 cfs 0.000 af

Pond 23P: Basin 3 Peak Elev=381.38' Storage=16,278 cf Inflow=3.93 cfs 0.374 af
Outflow=0.00 cfs 0.000 af

Pond 30P: Amenity Area Parking Lot Basin Peak Elev=82.04' Storage=0.106 af Inflow=1.36 cfs 0.106 af Outflow=0.00 cfs 0.000 af

Pond 36P: Amenity Area

Peak Elev=81.27' Storage=0.072 af Inflow=0.72 cfs 0.072 af Outflow=0.00 cfs 0.000 af

Total Runoff Area = 66.460 ac Runoff Volume = 1.764 af Average Runoff Depth = 0.32" 89.71% Pervious = 59.620 ac 10.29% Impervious = 6.840 ac

Summary for Subcatchment 1S: Area 1A

[45] Hint: Runoff=Zero

Runoff = 0.00 cfs @ 3.00 hrs, Volume=

0.000 af, Depth= 0.00"

_	Area	(a <u>c</u>)	CN	Desc	ription			
	0.	050	30	Brus	h, Good, F	ISG A		
_	0.570 30 Woods, Good, HSG A							
	0.	620	30	Weig	hted Aver	age		
	0.	620		100.0	00% Pervi	ous Area		
	Tc	Lengtl	1	Slope	Velocity	Capacity	Description	
_	(min)	(feet)	(ft/ft)	(ft/sec)	(cfs)		
	13.4	280	0	.1100	0.35		Lag/CN Method,	

Summary for Subcatchment 2S: Area 1

[45] Hint: Runoff=Zero

Runoff = 0.00 cfs @ 3.00 hrs, Volume=

0.000 af, Depth= 0.00"

_	Area	(ac) C	N Des	cription	_	
	1.	420 3	30 Woo	ds, Good,	HSG A	
	1.	420	100.	00% Pervi	ous Area	
						B
	Tc	Length	Slope		Capacity	Description
_	(min)	(feet)	(ft/ft)	(ft/sec)	(cfs)	<u> </u>
	35.9	450	0.0330	0.21		Lag/CN Method,

Summary for Subcatchment 3S: Area 1B

[45] Hint: Runoff=Zero

Runoff = 0.00

0.00 cfs @ 3.00 hrs, Volume=

0.000 af, Depth= 0.00"

	<u>A</u> rea	(ac)	CN	Desc	ription				
	0.	220	30	Brus	h, Good, F	ISG A			
5.010 30 Woods, Good, HSG A									
	5.230 30 Weighted Average								
	5.	230		100.0	00% Pervi	ous Area			
	Tc	Lengt	h ·	Slope	Velocity	Capacity	Description		
	(min)	(feet	t)	(ft/ft)	(ft/sec)	(cfs)			
	65.9	1,05	0 0	.0380	0.27		Lag/CN Method,		

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Summary for Subcatchment 7S: Area 4

[45] Hint: Runoff=Zero

Runoff

0.00 cfs @ 3.00 hrs, Volume=

0.000 af, Depth= 0.00"

	Area	(ac) C	N Des	cription		
	0.	420	30 Brus	h, Good, h	HSG A	
_	7.	560	30 Woo	ds, Good,	HSG A	
	7.	980	30 Wei	ghted Aver	age	
	7.	.980	100.	00% Pervi	ous Area	
	Tc	Length	Slope	Velocity	Capacity	Description
_	<u>(min)</u>	(feet)	(ft/ft)	(ft/sec)	(cfs)	
	65.3	800	0.0250	0.20		Lag/CN Method,

Summary for Subcatchment 8S: Area 4A

[45] Hint: Runoff=Zero

Runoff = 0.00 cfs @ 3.00 hrs, Volume= 0.

0.000 af, Depth= 0.00"

_	Area	(ac) (N De <u>s</u>	cription					
	0.	060	30 Brus	sh, Good, H	HSG A				
_	2.	090	30 Woo	ods, Good,	HSG A				
	2.150 30 Weighted Average								
	2.	150	100.	.00% Pervi	ous Area				
	Тс	Length	Slope	Velocity	Capacity	Description			
_	<u>(min)</u>	(feet)	(ft/ft)	(ft/sec)	(cfs)		_		
	51.9	600	0.0250	0.19		Lag/CN Method,			

Summary for Subcatchment 17S: Area 2

Runoff = 5.64 cfs @ 12.12 hrs, Volume= 0.502 af, Depth= 0.96"

Area	(ac)	CN	Desc	ription	_						
4.	.170	39	>75% Grass cover, Good, HSG A								
0.	.810	98	98 Paved roads w/curbs & sewers, HSG A								
0.	0.660 98 Paved parking, HSG A										
0.	.620	320 98 Roofs, HSG A									
6.	6.260 59 Weighted Average										
4.	.170			1% Pervio							
2.090 33.39% Im				9% Imperv	ious Area						
_											
Tc	Lengi		Slope	Velocity	Capacity	Description					
<u>(min)</u>	(fee	t)	(ft/ft)_	(ft/sec)	(cfs)						
7.0						Direct Entry,					

Summary for Subcatchment 18S: Area 3

Runoff = 6.86 cfs @ 12.14 hrs, Volume= 0.584 af, Depth= 1.33"

	Area	(ac)	ÇN	Desc	De <u>scription</u>							
	2.	910	10 39 >75% Grass cover, Good, HSG A									
	1.	020	98	Pave	Paved roads w/curbs & sewers, HSG A							
	0.	790	98	Paved parking, HSG A								
	0.	0.550 98 Roofs, HSG A										
	5.	270	65	Weig	hted Aver	age	-					
	2.	910		55.2	2% Pervio	us Area						
	2.	360		44.7	8% Imperv	rious Area						
	Тс	Leng		Slope	Velocity	Capacity	Description					
_	(min)	(fee	et)	(ft/ft <u>)</u>	(ft/sec)	(cfs)	<u> </u>					
	8.8						Direct Entry,					

Summary for Subcatchment 24S: Area 18

Runoff = 3.93 cfs @ 12.10 hrs, Volume= 0.374 af, Depth= 0.74"

Area	(ac)	CN	Desc	<u>Description</u>							
4.	310	39	>759	% Grass co	ver, Good	HSG A	·				
0.	760	98	Pave	ed roads w	/curbs & se	ewers, HSG A					
0.	490	98	Pave	ed parking,	HSG A						
0.	390	98	Roof	s, HSG A							
0.	.090	30	Woo	ds, Good,	HSG A						
6.	.040	55	Weig	hted Aver	age						
4.	400		72.8	5% Pervio	us Area						
1.	640		27.1	5% Imperv	ious Area						
Tc (min)	Leng (fee		Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description					
5.0						Direct Entry,					

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Summary for Subcatchment 25S: Area 9

[45] Hint: Runoff=Zero

Runoff

0.00 cfs @ 3.00 hrs, Volume=

0.000 af, Depth= 0.00"

_	Area	(ac) C	N Desc	cription			
	0.	030	30 Brus	h, Good, F	HSG A		
_	5.350 30 Woo ds, Good, HSG A						
	5.380 30		30 Wei	ghted Aver	age		
	5.380 100.00% Pervious Are						
	Tc	Length	Slope	Velocity	Capacity	Description	
_	(min)	(feet)	(ft/ft)	(ft/sec)	(cfs)		
	44.3	850	0.0600	0.32		Lag/CN Method.	

Summary for Subcatchment 26S: Area 5

[45] Hint: Runoff=Zero

Runoff = 0.00 cfs @ 3.00 hrs, Volume=

0.000 af, Depth= 0.00"

Area (ac) CN Description							
	1.890 30 Brush, Good, HSG A						
_	17.360 30 Woods, Good, HSG A					HSG A	
	19.250 30 Weighted Average					age	
	19.250 100.00% Pervious Area					ous Area	
	Tc	Length	Slo	ре	Velocity	Capacity	Description
	(min)	(feet)	(fi	t/ft)	(ft/sec)	(cfs)	
	152.0	1,600	0.01	140	0.18		Lag/CN Method,

Summany for Subactohment 27St Area

0.00 cfs @ 22.94 hrs, Volume=

Summary for Subcatchment 27S: Area 8

0.002 af, Depth= 0.01"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 3.00-60.00 hrs, dt= 0.03 hrs

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Runoff

_	Area	(ac) (<u>CN</u>	Desc	ription		
	1.350 30 Woods, Good, HSG A					HSG A	
*	1.	540	35	ease	ment		
	2.890 33 Weighted Average						
	2.890 100.00% Pervious Area						
	Tc	Length	SI.	lope	Velocity	Capacity	Description
_	(min)	(feet)	(ft/ft)	(ft/sec)	(cfs)	
	16.7	550	0.1	750	0.55		Lag/CN Method,

Summary for Subcatchment 28S: Area 6

Runoff = 0.00 cfs @ 22.95 hrs, Volume= 0.001 af, Depth= 0.01"

	Area (ac) CN Description							
	0.490 30 Brush, Good, HSG A					ISG A		
	0.320 30 Woods, Good, HSG A				ds, Good,	HSG A		
*	0.	860	35	ea se	ment			
	1.670 33			Weig	hted Aver	age		
	1.670 100.00% Pervious Area				00% Pervi	ous Area		
	Tc	Lengt	:h	Slope	Velocity	Capacity	Description	
_	(min)	(fee	t)	(ft/ft)	(ft/sec)	(cfs)		
	17.2	35	0 (0.0800	0.34		Lag/CN Method,	

Summary for Subcatchment 29S: Area 7b

Runoff = 1.36 cfs @ 12.07 hrs, Volume= 0.106 af, Depth> 4.24"

_	<u>Area</u>	(ac)	ÇN	Desc	ription	_			
0.300 98 Paved parking, HSG A									
	0.300 100.00% Impervious Area								
	Tc	Leng	th :	Slope	Velocity	Capacity	Description		
_	(min)	(fee	et)	(ft/ft)	(ft/sec)	(cfs)			
	5.0						Direct Entry.		

Summary for Subcatchment 33S: Area 7a

Runoff = 1.48 cfs @ 12.15 hrs, Volume= 0.123 af, Depth= 1.97"

Area (ac) CN Description										
	0.	330	98 Pa	aved roads v	v/curbs & se	ewers, HSG A				
*	0.	120	98 w	walk						
	0.	300	39 >7	>75% Grass cover, Good, HSG A						
	0.	750	74 W							
	0.	300	40	0.00% Pervio	ous Area					
	0.	450	60	0.00% Imper	vious Area					
	Tc	Length	Slop	•	Capacity	Description				
_	(min)	(feet)	(ft/1	t) (ft/sec)	(cfs)					
	10.2	650	0.070	0 1.07		Lag/CN Method,				

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Summary for Subcatchment 34S: Area 7

Runoff

0.72 cfs @ 12.10 hrs, Volume=

0.072 af, Depth= 0.69"

_	Area	(ac)	CN	Desc	cription		
*	1.	250	54	Ame	nity area		
_	1.	250		100.	00% Pervi	ous Area	-
	Tc		•	Slope			Description
_	(min)	(fee	∋t)	(ft/ft)	(ft/sec)	(cfs)	
	5.0						Direct Entry,

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Summary for Reach 4R: 36-inch culvert

[52] Hint: Inlet/Outlet conditions not evaluated

Inflow Area = 0.620 ac, 0.00% Impervious, Inflow Depth = 0.00" for 10-Year event

Inflow = 0.00 cfs @ 3.00 hrs, Volume= 0.000 af

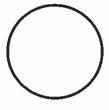
Outflow = 0.00 cfs @ 3.00 hrs, Volume= 0.000 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 3.00-60.00 hrs, dt= 0.03 hrs

Max. Velocity= 0.00 fps, Min. Travel Time= 0.0 min Avg. Velocity = 0.00 fps, Avg. Travel Time= 0.0 min

Peak Storage= 0 cf @ 3.00 hrs Average Depth at Peak Storage= 0.00' Bank-Full Depth= 3.00' Flow Area= 7.1 sf, Capacity= 66.70 cfs

36.0" Round Pipe n= 0.013 Length= 60.0' Slope= 0.0100 '/' Inlet Invert= 450.00', Outlet Invert= 449.40'



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Summary for Reach 5R: Natural channel

Inflow Area = 0.620 ac, 0.00% Impervious, Inflow Depth = 0.00" for 10-Year event

Inflow = 0.00 cfs @ 3.00 hrs, Volume= 0.000 af

Outflow = 0.00 cfs @ 3.00 hrs, Volume= 0.000 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 3.00-60.00 hrs, dt= 0.03 hrs

Max. Velocity= 0.00 fps, Min. Travel Time= 0.0 min Avg. Velocity = 0.00 fps, Avg. Travel Time= 0.0 min

Peak Storage= 0 cf @ 3.00 hrs Average Depth at Peak Storage= 0.00' Bank-Full Depth= 2.00' Flow Area= 6.0 sf, Capacity= 34.73 cfs

2.00' x 2.00' deep channel, n= 0.040 Earth, cobble bottom, clean sides Side Slope Z-value= 0.5 '/' Top Width= 4.00' Length= 350.0' Slope= 0.0269 '/' Inlet Invert= 449.40', Outlet Invert= 440.00'



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Summary for Reach 6R: Natural Channel

Inflow Area = 10.020 ac, 0.00% Impervious, Inflow Depth = 0.00" for 10-Year event

Inflow = 0.00 cfs @ 3.00 hrs, Volume= 0.000 af

Outflow = 0.00 cfs @ 3.00 hrs, Volume= 0.000 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 3.00-60.00 hrs, dt= 0.03 hrs

Max. Velocity= 0.00 fps, Min. Travel Time= 0.0 min Avg. Velocity = 0.00 fps, Avg. Travel Time= 0.0 min

Peak Storage= 0 cf @ 3.00 hrs Average Depth at Peak Storage= 0.00' Bank-Full Depth= 2.00' Flow Area= 14.0 sf, Capacity= 94.09 cfs

6.00' x 2.00' deep channel, n= 0.040 Side Slope Z-value= 0.5 '/' Top Width= 8.00' Length= 450.0' Slope= 0.0222 '/' Inlet Invert= 440.00', Outlet Invert= 430.00'

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Summary for Reach 9R: 24-inch culvert

[52] Hint: Inlet/Outlet conditions not evaluated

Inflow Area = 1.420 ac, 0.00% Impervious, Inflow Depth = 0.00" for 10-Year event

Inflow = 0.00 cfs @ 3.00 hrs, Volume= 0.000 af

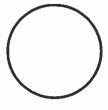
Outflow = 0.00 cfs @ 3.00 hrs, Volume= 0.000 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 3.00-60.00 hrs, dt= 0.03 hrs

Max. Velocity= 0.00 fps, Min. Travel Time= 0.0 min Avg. Velocity = 0.00 fps, Avg. Travel Time= 0.0 min

Peak Storage= 0 cf @ 3.00 hrs Average Depth at Peak Storage= 0.00' Bank-Full Depth= 2.00' Flow Area= 3.1 sf, Capacity= 29.21 cfs

24.0" Round Pipe n= 0.013 Length= 60.0' Slope= 0.0167 '/' Inlet Invert= 480.00', Outlet Invert= 479.00'



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Summary for Reach 10R: Natural channel

Inflow Area = 1.420 ac, 0.00% Impervious, Inflow Depth = 0.00" for 10-Year event

Inflow = 0.00 cfs @ 3.00 hrs, Volume= 0.000 af

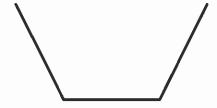
Outflow = 0.00 cfs @ 3.00 hrs, Volume= 0.000 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 3.00-60.00 hrs, dt= 0.03 hrs

Max. Velocity= 0.00 fps, Min. Travel Time= 0.0 min Avg. Velocity = 0.00 fps, Avg. Travel Time= 0.0 min

Peak Storage= 0 cf @ 3.00 hrs Average Depth at Peak Storage= 0.00' Bank-Full Depth= 1.50' Flow Area= 3.4 sf, Capacity= 30.73 cfs

1.50' x 1.50' deep channel, n= 0.040 Side Slope Z-value= 0.5 '/' Top Width= 3.00' Length= 400.0' Slope= 0.0975 '/' Inlet Invert= 479.00', Outlet Invert= 440.00'



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Summary for Reach 11R: Box Culvert

[52] Hint: Inlet/Outlet conditions not evaluated

Inflow Area = 10.020 ac, 0.00% Impervious, Inflow Depth = 0.00" for 10-Year event

Inflow = 0.00 cfs @ 3.00 hrs, Volume= 0.000 af

Outflow = 0.00 cfs @ 3.00 hrs, Volume= 0.000 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 3.00-60.00 hrs, dt= 0.03 hrs

Max. Velocity= 0.00 fps, Min. Travel Time= 0.0 min Avg. Velocity = 0.00 fps, Avg. Travel Time= 0.0 min

Peak Storage= 0 cf @ 3.00 hrs Average Depth at Peak Storage= 0.00' Bank-Full Depth= 6.00' Flow Area= 72.0 sf, Capacity= 1,686.63 cfs

144.0" W x 72.0" H Box Pipe n= 0.013 Length= 60.0' Slope= 0.0167 '/' Inlet Invert= 430.00', Outlet Invert= 429.00'



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Summary for Reach 12R: Natural Channel

[62] Hint: Exceeded Reach 16R OUTLET depth by 54.00' @ 3.00 hrs

Inflow Area = 48.180 ac, 9.24% Impervious, Inflow Depth = 0.00" for 10-Year event

Inflow = 0.00 cfs @ 3.00 hrs, Volume= 0.000 af

Outflow = 0.00 cfs @ 3.00 hrs, Volume= 0.000 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 3.00-60.00 hrs, dt= 0.03 hrs

Max. Velocity= 0.00 fps, Min. Travel Time= 0.0 min Avg. Velocity = 0.00 fps, Avg. Travel Time= 0.0 min

Peak Storage= 0 cf @ 3.00 hrs Average Depth at Peak Storage= 0.00'

Bank-Full Depth= 2.00' Flow Area= 18.0 sf, Capacity= 197.78 cfs

8.00' x 2.00' deep channel, n= 0.040 Side Slope Z-value= 0.5 '/' Top Width= 10.00' Length= 1,100.0' Slope= 0.0536 '/' Inlet Invert= 429.00', Outlet Invert= 370.00'

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Summary for Reach 13R: 24-inch Culvert

[52] Hint: Inlet/Outlet conditions not evaluated

Inflow Area = 5.230 ac, 0.00% Impervious, Inflow Depth = 0.00" for 10-Year event

Inflow = 0.00 cfs @ 3.00 hrs, Volume= 0.000 af

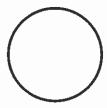
Outflow = 0.00 cfs @ 3.00 hrs, Volume= 0.000 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 3.00-60.00 hrs, dt= 0.03 hrs

Max. Velocity= 0.00 fps, Min. Travel Time= 0.0 min Avg. Velocity = 0.00 fps, Avg. Travel Time= 0.0 min

Peak Storage= 0 cf @ 3.00 hrs Average Depth at Peak Storage= 0.00' Bank-Full Depth= 2.00' Flow Area= 3.1 sf, Capacity= 29.21 cfs

24.0" Round Pipe n= 0.013 Length= 60.0' Slope= 0.0167 '/' Inlet Invert= 481.00', Outlet Invert= 480.00'



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Summary for Reach 14R: Natural Channel

Inflow Area = 5.230 ac, 0.00% Impervious, Inflow Depth = 0.00" for 10-Year event

Inflow = 0.00 cfs @ 3.00 hrs, Volume= 0.000 af

Outflow = 0.00 cfs @ 3.00 hrs, Volume= 0.000 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 3.00-60.00 hrs, dt= 0.03 hrs

Max. Velocity= 0.00 fps, Min. Travel Time= 0.0 min Avg. Velocity = 0.00 fps, Avg. Travel Time= 0.0 min

Peak Storage= 0 cf @ 3.00 hrs Average Depth at Peak Storage= 0.00' Bank-Full Depth= 2.00' Flow Area= 10.0 sf, Capacity= 63.38 cfs

4.00' x 2.00' deep channel, n= 0.040 Side Slope Z-value= 0.5 '/' Top Width= 6.00' Length= 600.0' Slope= 0.0233 '/' Inlet Invert= 479.00', Outlet Invert= 465.00'



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Summary for Reach 15R: Box Culvert

[52] Hint: Inlet/Outlet conditions not evaluated

Inflow Area = 7.380 ac, 0.00% Impervious, Inflow Depth = 0.00" for 10-Year event

Inflow = 0.00 cfs @ 3.00 hrs, Volume= 0.000 af

Outflow = 0.00 cfs @ 3.00 hrs, Volume= 0.000 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 3.00-60.00 hrs, dt= 0.03 hrs

Max. Velocity= 0.00 fps, Min. Travel Time= 0.0 min Avg. Velocity = 0.00 fps, Avg. Travel Time= 0.0 min

Peak Storage= 0 cf @ 3.00 hrs Average Depth at Peak Storage= 0.00' Bank-Full Depth= 4.00' Flow Area= 32.0 sf, Capacity= 572.06 cfs

96.0" W x 48.0" H Box Pipe n= 0.013 Length= 60.0' Slope= 0.0167 '/' Inlet Invert= 465.00', Outlet Invert= 464.00'



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Summary for Reach 16R: Natural Channel

Inflow Area = 7.380 ac, 0.00% Impervious, Inflow Depth = 0.00" for 10-Year event

Inflow = 0.00 cfs @ 3.00 hrs, Volume= 0.000 af

Outflow = 0.00 cfs @ 3.00 hrs, Volume= 0.000 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 3.00-60.00 hrs, dt= 0.03 hrs

Max. Velocity= 0.00 fps, Min. Travel Time= 0.0 min Avg. Velocity = 0.00 fps, Avg. Travel Time= 0.0 min

Peak Storage= 0 cf @ 3.00 hrs Average Depth at Peak Storage= 0.00' Bank-Full Depth= 2.00' Flow Area= 14.0 sf, Capacity= 217.43 cfs

6.00' x 2.00' deep channel, n= 0.040 Side Slope Z-value= 0.5 '/' Top Width= 8.00' Length= 750.0' Slope= 0.1187 '/' Inlet Invert= 464.00', Outlet Invert= 375.00'

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Summary for Reach 19R: Box Culvert

[52] Hint: Inlet/Outlet conditions not evaluated

Inflow Area = 48.180 ac, 9.24% Impervious, Inflow Depth = 0.00" for 10-Year event

Inflow = 0.00 cfs @ 3.00 hrs, Volume= 0.000 af

Outflow = 0.00 cfs @ 3.00 hrs, Volume= 0.000 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 3.00-60.00 hrs, dt= 0.03 hrs

Max. Velocity= 0.00 fps, Min. Travel Time= 0.0 min Avg. Velocity = 0.00 fps, Avg. Travel Time= 0.0 min

Peak Storage= 0 cf @ 3.00 hrs Average Depth at Peak Storage= 0.00' Bank-Full Depth= 10.00' Flow Area= 140.0 sf, Capacity= 4,217.47 cfs

168.0" W x 120.0" H Box Pipe n= 0.013 Length= 60.0' Slope= 0.0167 '/' Inlet Invert= 370.00', Outlet Invert= 369.00'



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Summary for Reach 21R: Natural Channel

Inflow Area = 59.600 ac, 10.22% Impervious, Inflow Depth = 0.00" for 10-Year event

Inflow = 0.00 cfs @ 3.00 hrs, Volume= 0.000 af

Outflow = 0.00 cfs @ 3.00 hrs, Volume= 0.000 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 3.00-60.00 hrs, dt= 0.03 hrs

Max. Velocity= 0.00 fps, Min. Travel Time= 0.0 min Avg. Velocity = 0.00 fps, Avg. Travel Time= 0.0 min

Peak Storage= 0 cf @ 3.00 hrs Average Depth at Peak Storage= 0.00' Bank-Full Depth= 2.00' Flow Area= 22.0 sf, Capacity= 264.68 cfs

10.00' x 2.00' deep channel, n= 0.040 Side Slope Z-value= 0.5 '/' Top Width= 12.00' Length= 850.0' Slope= 0.0600 '/' Inlet Invert= 369.00', Outlet Invert= 318.00'

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Summary for Reach 22R: 24-inch Culvert at Henry Street

[52] Hint: Inlet/Outlet conditions not evaluated

Inflow Area = 59.600 ac, 10.22% Impervious, Inflow Depth = 0.00" for 10-Year event

Inflow = 0.00 cfs @ 3.00 hrs, Volume= 0.000 af

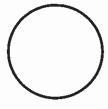
Outflow = 0.00 cfs @ 3.00 hrs, Volume= 0.000 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 3.00-60.00 hrs, dt= 0.03 hrs

Max. Velocity= 0.00 fps, Min. Travel Time= 0.0 min Avg. Velocity = 0.00 fps, Avg. Travel Time= 0.0 min

Peak Storage= 0 cf @ 3.00 hrs Average Depth at Peak Storage= 0.00' Bank-Full Depth= 2.00' Flow Area= 3.1 sf, Capacity= 43.87 cfs

24.0" Round Pipe n= 0.013 Length= 46.0' Slope= 0.0376 '/' Inlet Invert= 315.63', Outlet Invert= 313.90'



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Summary for Reach 31R: Municipal Drain

[52] Hint: Inlet/Outlet conditions not evaluated

[81] Warning: Exceeded Pond 30P by 269.00' @ 3.00 hrs [81] Warning: Exceeded Pond 36P by 269.22' @ 11.97 hrs

Inflow Area = 3.970 ac, 18.89% Impervious, Inflow Depth = 0.38" for 10-Year event

1.48 cfs @ 12.15 hrs, Volume= 1.46 cfs @ 12.17 hrs, Volume= Inflow = 0.125 af

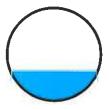
Outflow 0.125 af, Atten= 1%, Lag= 1.4 min

Routing by Stor-Ind+Trans method, Time Span= 3.00-60.00 hrs, dt= 0.03 hrs

Max. Velocity= 4.41 fps, Min. Travel Time= 0.8 min Avg. Velocity = 1.68 fps, Avg. Travel Time= 2.0 min

Peak Storage= 67 cf @ 12.16 hrs Average Depth at Peak Storage= 0.40' Bank-Full Depth= 1.25' Flow Area= 1.2 sf, Capacity= 6.78 cfs

15.0" Round Pipe n = 0.024Length= 200.0' Slope= 0.0375 '/' Inlet Invert= 348.00', Outlet Invert= 340.50'



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Summary for Pond 20P: Basin 1

Inflow Area = 11.530 ac, 38.59% Impervious, Inflow Depth = 1.13" for 10-Year event

Inflow = 12.47 cfs @ 12.13 hrs, Volume= 1.086 af

Outflow = 0.00 cfs @ 3.00 hrs, Volume= 0.000 af, Atten= 100%, Lag= 0.0 min

Primary = 0.00 cfs @ 3.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 3.00-60.00 hrs, dt= 0.03 hrs Peak Elev= 444.81' @ 24.54 hrs Surf.Area= 14,349 sf Storage= 47,301 cf

Plug-Flow detention time= (not calculated: initial storage excedes outflow)

Center-of-Mass det. time= (not calculated: no outflow)

<u>Volume</u>	Inve	rt Avail.Sto	rage Storage D	escription	
#1	440.00)' 102,70	00 cf Custom S	Stage Data (Pr	ismatic) Listed below (Recalc)
		_		_	
Elevation	on S	Surf.Area	Inc.Store	Cum.Store	
(fee	et)	(sq-ft)	(cubic-feet)	(cubic-feet)	
440.0	00	5,335	0	0	
448.0	00	20,340	102,700	102,700	
		·	·	·	
Device	Routing	Invert	Outlet Devices		
#1	Primary	447.00'	10.0' long x 10).0' breadth Br	oad-Crested Rectangular Weir
	-		Head (feet) 0.2	20 0.40 0.60	0.80 1.00 1.20 1.40 1.60
			Coef. (English)	2.49 2.56 2.	70 2.69 2.68 2.69 2.67 2.64
#2	Primary	440.00'	12.0" Round C	Culvert L= 75	.0' Ke= 0.500
	•		Inlet / Outlet Inv	vert= 440.00' /	435.00' S= 0.0667 '/' Cc= 0.900
			n= 0.013, Flow	/ Area= 0.79 sf	•
#3	Device 2	446.00'	6.0" Vert. Orific		
#4	Device 2	447.00'	24.0" x 24.0" H	oriz. Orifice/G	Frate C= 0.600
			Limited to weir		

Primary OutFlow Max=0.00 cfs @ 3.00 hrs HW=440.00' (Free Discharge)

-1=Broad-Crested Rectangular Weir (Controls 0.00 cfs)

-2=Culvert (Controls 0.00 cfs)

-3=Orifice/Grate (Controls 0.00 cfs)

-4=Orifice/Grate (Controls 0.00 cfs)

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Summary for Pond 23P: Basin 3

Inflow Area = 6.040 ac, 27.15% Impervious, Inflow Depth = 0.74" for 10-Year event

Inflow = 3.93 cfs @ 12.10 hrs, Volume= 0.374 af

Outflow = 0.00 cfs @ 3.00 hrs, Volume= 0.000 af, Atten= 100%, Lag= 0.0 min

Primary = 0.00 cfs @ 3.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 3.00-60.00 hrs, dt= 0.03 hrs Peak Elev= 381.38' @ 24.30 hrs Surf.Area= 12,366 sf Storage= 16,278 cf

Plug-Flow detention time= (not calculated: initial storage excedes outflow)

Center-of-Mass det. time= (not calculated: no outflow)

Volume	Inve	rt Ava	ail.Storage	e Storage	Description		
#1	380.0	0'	51,550 c	f Custom	Stage Data (Pr	ismatic) Listed b	elow (Recalc)
Elevatio	• •	Surf.Area (sq-ft)		nc.Store lbic-feet)	Cum.Store (cubic-feet)		
380.0	0	11,200		0	0		
384.0	0	14,575		51,550	51,550		
Device	Routing	lı	nvert O	utlet Device	es		
#1	Primary	38).0' long Sh 0' Crest He	•	ctangular Weir	2 End Contraction(s)

Primary OutFlow Max=0.00 cfs @ 3.00 hrs HW=380.00' (Free Discharge) 1=Sharp-Crested Rectangular Weir (Controls 0.00 cfs)

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Summary for Pond 30P: Amenity Area Parking Lot Basin

[82] Warning: Early inflow requires earlier time span

Inflow Area = 0.300 ac,100.00% Impervious, Inflow Depth > 4.24" for 10-Year event

Inflow 1.36 cfs @ 12.07 hrs, Volume= 0.106 af

3.00 hrs, Volume= Outflow 0.00 cfs @ 0.000 af, Atten= 100%, Lag= 0.0 min

0.00 cfs @ 3.00 hrs, Volume= Primary 0.000 af

Routing by Stor-Ind method, Time Span= 3.00-60.00 hrs, dt= 0.03 hrs Peak Elev= 82.04' @ 24.30 hrs Surf.Area= 0.061 ac Storage= 0.106 af

Plug-Flow detention time= (not calculated: initial storage excedes outflow)

Center-of-Mass det. time= (not calculated: no outflow)

Volume	Invert	Avail.Storage	Storage Description				
#1	79.00'	6.777 af	38.00'W x 54.00'L x 60.00'H Prismatoid Z=1.0				
			17.041 af Overall - 0.100 af Embedded = 16.942 af x 40.0% Voids				
#2	<u>7</u> 9.00'	0.100 af	57.0" D x 245.0'L Pipe Storage Inside #1				
6.876			Total Available Storage				
		•					
<u>Device</u>	Routing	Invert Ou	ıtlet Devices				
#1	Primary	83.00' 12	.0" Round Culvert L= 40.0' Ke= 0.500				
		Inle	et / Outlet Invert= 83.00' / 68.00' S= 0.3750 '/' Cc= 0.900				
	n= 0.013, Flow Area= 0.79 sf						
#2	Primary	85.00' 24	4.0" x 24.0" Horiz. Orifice/Grate				
		Lin	nited to weir flow at low heads				

Primary OutFlow Max=0.00 cfs @ 3.00 hrs HW=79.00' (Free Discharge)

-1=Culvert (Controls 0.00 cfs)

-2=Orifice/Grate (Controls 0.00 cfs)

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Summary for Pond 36P: Amenity Area

Inflow Area = 1.250 ac, 0.00% Impervious, Inflow Depth = 0.69" for 10-Year event

Inflow = 0.72 cfs @ 12.10 hrs, Volume= 0.072 af

Outflow = 0.00 cfs @ 3.00 hrs, Volume= 0.000 af, Atten= 100%, Lag= 0.0 min

Primary = 0.00 cfs @ 3.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 3.00-60.00 hrs, dt= 0.03 hrs Peak Elev= 81.27' @ 24.30 hrs Surf.Area= 0.069 ac Storage= 0.072 af

Plug-Flow detention time= (not calculated: initial storage excedes outflow)

Center-of-Mass det. time= (not calculated: no outflow)

<u>Volume</u>	Invert	_Avail.Storage	Storage Description		
#1	79.00'	0.118 af	15.00'W x 150.00'L x 5.00'H Prismatoid Z=1.0		
			0.357 af Overall - 0.061 af Embedded = 0.296 af x 40.0% Voids		
#2	79.00'	0.061 af	57.0" D x 150.0'L Pipe Storage Inside #1		
		0.179 af	Total Available Storage		
Device	Routing	Invert Ou	ıtlet Devices		
#1	Primary	83.00' 12 .	.0" Round Culvert L= 120.0' Ke= 0.500		
	_	Ink	et / Outlet Invert= 83.00' / 68.00' S= 0.1250 '/' Cc= 0.900		
		n=	0.013, Flow Area= 0.79 sf		
#2	Primary	85.00' 24	.0" x 24.0" Horiz. Orifice/Grate C= 0.600		

Limited to weir flow at low heads

Primary OutFlow Max=0.00 cfs @ 3.00 hrs HW=79.00' (Free Discharge)

-1=Culvert (Controls 0.00 cfs)

-2=Orifice/Grate (Controls 0.00 cfs)

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Time span=3.00-60.00 hrs, dt=0.03 hrs, 1901 points Runoff by SCS TR-20 method, UH=SCS Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment 1S: Area 1A Runoff Area=0.620 ac 0.00% Impervious Runoff Depth=0.12"

Flow Length=280' Slope=0.1100 '/' Tc=13.4 min CN=30 Runoff=0.01 cfs 0.006 af

Subcatchment 2S: Area 1 Runoff Area=1.420 ac 0.00% Impervious Runoff Depth=0.12"

Flow Length=450' Slope=0.0330 '/' Tc=35.9 min CN=30 Runoff=0.02 cfs 0.014 af

Subcatchment 3S: Area 1B Runoff Area=5.230 ac 0.00% Impervious Runoff Depth=0.12"

Flow Length=1,050' Slope=0.0380'/' Tc=65.9 min CN=30 Runoff=0.08 cfs 0.052 af

Subcatchment 7S: Area 4 Runoff Area=7.980 ac 0.00% Impervious Runoff Depth=0.12"

Flow Length=800' Slope=0.0250 '/' Tc=65.3 min CN=30 Runoff=0.12 cfs 0.080 af

Subcatchment 8S: Area 4A Runoff Area = 2.150 ac 0.00% Impervious Runoff Depth=0.12"

Flow Length=600' Slope=0.0250 '/' Tc=51.9 min CN=30 Runoff=0.03 cfs 0.021 af

Subcatchment 17S: Area 2 Runoff Area=6.260 ac 33.39% Impervious Runoff Depth=2.10"

Tc=7.0 min CN=59 Runoff=14.02 cfs 1.095 af

Subcatchment 18S: Area 3 Runoff Area=5,270 ac 44,78% Impervious Runoff Depth=2,65"

Tc=8.8 min CN=65 Runoff=14.54 cfs 1.162 af

Subcatchment 24S: Area 18 Runoff Area=6.040 ac 27.15% Impervious Runoff Depth=1.75"

Tc=5.0 min CN=55 Runoff=11,64 cfs 0,882 af

Subcatchment 25S: Area 9 Runoff Area=5.380 ac 0.00% Impervious Runoff Depth=0.12"

Flow Length=850' Slope=0.0600 '/' Tc=44.3 min CN=30 Runoff=0.08 cfs 0.054 af

Subcatchment 26S: Area 5 Runoff Area=19.250 ac 0.00% Impervious Runoff Depth=0.12"

Flow Length=1,600' Slope=0.0140'/' Tc=152.0 min CN=30 Runoff=0.26 cfs 0.192 af

Runoff Area=2.890 ac 0.00% Impervious Runoff Depth=0.24" Subcatchment 27S: Area 8

Flow Length=550' Slope=0.1750 '/' Tc=16.7 min CN=33 Runoff=0.10 cfs 0.058 af

Subcatchment 28S: Area 6 Runoff Area=1.670 ac 0.00% Impervious Runoff Depth=0.24"

Flow Length=350' Slope=0.0800 '/' Tc=17.2 min CN=33 Runoff=0.06 cfs 0.034 af

Subcatchment 29S: Area 7b Runoff Area=0.300 ac 100.00% Impervious Runoff Depth>6.10"

Tc=5.0 min CN=98 Runoff=1.94 cfs 0.152 af

Subcatchment 33S: Area 7a Runoff Area=0.750 ac 60.00% Impervious Runoff Depth=3.52"

Flow Length=650' Slope=0.0700 '/' Tc=10.2 min CN=74 Runoff=2.68 cfs 0.220 af

Subcatchment 34S: Area 7 Runoff Area=1.250 ac 0.00% Impervious Runoff Depth=1.67"

Tc=5.0 min CN=54 Runoff=2.26 cfs 0.174 af

Reach 4R: 36-inch culvert Avg. Flow Depth=0.03' Max Vel=0.84 fps Inflow=0.01 cfs 0.006 af

36.0" Round Pipe n=0.013 L=60.0' S=0.0100'/ Capacity=66,70 cfs Outflow=0.01 cfs 0.006 af

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Outflow=0.02 cfs 0.009 af

Reach 5R: Natural channel

Avg. Flow Depth=0.01' Max Vel=0.44 fps Inflow=0.01 cfs 0.006 af n=0.040 L=350.0' S=0.0269 '/' Capacity=34.73 cfs Outflow=0.01 cfs 0.006 af

Reach 6R: Natural Channel

Avg. Flow Depth=0.04' Max Vel=0.64 fps Inflow=0.15 cfs 0.100 af n=0.040 L=450.0' S=0.0222 '/' Capacity=94.09 cfs Outflow=0.15 cfs 0.100 af

Reach 9R: 24-inch culvert Avg. Flow Depth=0.04' Max Vel=1.37 fps Inflow=0.02 cfs 0.014 af 24.0" Round Pipe n=0.013 L=60.0' S=0.0167 '/' Capacity=29.21 cfs Outflow=0.02 cfs 0.014 af

Reach 10R: Natural channelAvg. Flow Depth=0.02' Max Vel=0.82 fps Inflow=0.02 cfs 0.014 af n=0.040 L=400.0' S=0.0975 '/' Capacity=30.73 cfs Outflow=0.02 cfs 0.014 af

Reach 11R: Box CulvertAvg. Flow Depth=0.01' Max Vel=2.25 fps Inflow=0.15 cfs 0.100 af 144.0" x 72.0" Box Pipe n=0.013 L=60.0' S=0.0167 '/' Capacity=1,686.63 cfs Outflow=0.15 cfs 0.100 af

Reach 12R: Natural Channel

Avg. Flow Depth=0.09' Max Vel=1.67 fps Inflow=1.15 cfs 1.101 af n=0.040 L=1,100.0' S=0.0536 '/' Capacity=197.78 cfs Outflow=1.15 cfs 1.101 af

Reach 13R: 24-inch Culvert

Avg. Flow Depth=0.08' Max Vel=2.02 fps Inflow=0.08 cfs 0.052 af 24.0" Round Pipe n=0.013 L=60.0' S=0.0167 '/' Capacity=29.21 cfs Outflow=0.08 cfs 0.052 af

Reach 14R: Natural ChannelAvg. Flow Depth=0.03' Max Vel=0.60 fps Inflow=0.08 cfs 0.052 af n=0.040 L=600.0' S=0.0233'/ Capacity=63.38 cfs Outflow=0.08 cfs 0.052 af

Reach 15R: Box CulvertAvg. Flow Depth=0.01' Max Vel=1.71 fps Inflow=0.11 cfs 0.074 af 96.0" x 48.0" Box Pipe n=0.013 L=60.0' S=0.0167 '/' Capacity=572.06 cfs Outflow=0.11 cfs 0.074 af

Reach 16R: Natural ChannelAvg. Flow Depth=0.02' Max Vel=0.94 fps Inflow=0.11 cfs 0.074 af n=0.040 L=750.0' S=0.1187 '/' Capacity=217.43 cfs Outflow=0.11 cfs 0.074 af

Reach 19R: Box Culvert Avg. Flow Depth=0.03' Max Vel=3.15 fps Inflow=1.15 cfs 1.101 af 168.0" x 120.0" Box Pipe n=0.013 L=60.0' S=0.0167 '/' Capacity=4,217.47 cfs Outflow=1.15 cfs 1.101 af

Reach 21R: Natural Channel

Avg. Flow Depth=0.07' Max Vel=1.62 fps Inflow=1.22 cfs 1.178 af n=0.040 L=850.0' S=0.0600 '/' Capacity=264.68 cfs Outflow=1.22 cfs 1.178 af

Reach 22R: 24-inch Culvert at Henry Avg. Flow Depth=0.23' Max Vel=6.10 fps Inflow=1.22 cfs 1.178 af 24.0" Round Pipe n=0.013 L=46.0' S=0.0376 '/' Capacity=43.87 cfs Outflow=1.22 cfs 1.178 af

Reach 31R: Municipal Drain

Avg. Flow Depth=0.55' Max Vel=5.20 fps Inflow=2.68 cfs 0.296 af 15.0" Round Pipe n=0.024 L=200.0' S=0.0375 '/' Capacity=6.78 cfs Outflow=2.65 cfs 0.296 af

Pond 20P: Basin 1 Peak Elev=446.77' Storage=79,073 cf Inflow=28.41 cfs 2.257 af Outflow=0.68 cfs 0.735 af

Pond 23P: Basin 3 Peak Elev=383.03' Storage=37,789 cf Inflow≈11.64 cfs 0.882 af Outflow=0.19 cfs 0.024 af

Pond 30P: Amenity Area Parking Lot Basin Peak Elev=83.03' Storage=0.144 af Inflow=1.94 cfs 0.152 af

Pond 36P: Amenity Area

Peak Elev=83.12' Storage=0.145 af Inflow=2.26 cfs 0.174 af Outflow=0.07 cfs 0.033 af

Total Runoff Area = 66.460 ac Runoff Volume = 4.198 af Average Runoff Depth = 0.76" 89.71% Pervious = 59.620 ac 10.29% Impervious = 6.840 ac

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Summary for Subcatchment 1S: Area 1A

Runoff

0.01 cfs @ 15.13 hrs, Volume=

0.006 af, Depth= 0.12"

	Area	(ac) (CN	Desc	ription			
0.050 30 Brush, Good, HSG A								
0.570 30 Woods, Good, HSG A						HSG A		
0.620 30 Weighted Average								
	0.	620		100.0	00% Pervi	ous Area		
	Тс	Length	Sle	ope	Velocity	Capacity	Description	
_	(min)	(feet)	(f	ft/ft)	(ft/sec)	(cfs)		
	13.4	280	0.1	100	0.35		Lag/CN Method,	

Summary for Subcatchment 2S: Area 1

Runoff = 0.02 cfs @ 15.51 hrs, Volume=

0.014 af, Depth= 0.12"

	Area	(ac) C	N Des	cription			
	1.	420	30 Woo	ods, Good,	HSG A		
	1.	420	100	.00% Pervi	ous Area		
	Тс	Length	Slope	Velocity	Capacity	Description	
	(min)	(feet)	(ft/ft)	(ft/sec)	(cfs)		
_	35.9	450	0.0330	0.21		Lag/CN Method.	-

Summary for Subcatchment 3S: Area 1B

0.08 cfs @ 16.02 hrs, Volume= 0.052 af, Depth= 0.12" Runoff

	Area	(ac) _	CN	Desc	ription		
0.220 30 Brush, Good, HSG A						ISG A	
5.010 30 Woods, Good, HSG A							
5.230 30 Weighted Average							
5.230 100.00% Pervious Area							
	Tc	Lengt	h	Slope	Velocity	Capacity	Description
_	(min)	(feet	:)	(ft/ft)	(ft/sec)	(cfs)	
	65.9	1,05	0 0	0.0380	0.27		Lag/CN Method,

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Summary for Subcatchment 7S: Area 4

Runoff

0.12 cfs @ 15.91 hrs, Volume=

0.080 af, Depth= 0.12"

_	Area	(ac)	CN	Desc	ription		
	0.						
	7.560 30 Woods, Good, HSG A						
7.980 30 Weighted Average							
	7.	980		100.	00% Pervi	ous Area	
	Tc	Length	n S	Slope	Velocity	Capacity	Description
	(min)	(feet)	(ft/ft)	(ft/sec)	(cfs)	
	65.3 8		0.0	0250	0.20		Lag/CN Method,

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Summary for Subcatchment 8S: Area 4A

Runoff

0.03 cfs @ 15.74 hrs, Volume=

0.021 af, Depth= 0.12"

Area	ı (ac)	CN	Desc	cription		
0.060 30 Brush, Good, HSG A						
2.090 30 Woods, Good, HSG A						
2.150 30 Weighted Average						
2	2.150		100.	00% Pervi	ous Area	
Tc	Leng	th	Slope	Velocity	Capacity	Description
<u>(min)</u>	(fee	et)	(ft/ft)	(ft/sec)	(cfs)	<u> </u>
51.9	60	00 (0.0250	0.19		Lag/CN Method,

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Summary for Subcatchment 17S: Area 2

14.02 cfs @ 12.11 hrs, Volume= Runoff

1.095 af, Depth= 2.10"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 3.00-60.00 hrs, dt= 0.03 hrs Type III 24-hr 100-Year Rainfall=6.40"

	Area	(ac)	CN	Desc	Description										
	4.	170	39	>75%	>75% Grass cover, Good, HSG A										
	0.	810	98	Paved roads w/curbs & sewers, HSG A											
0.660 98 Paved parking, HSG A															
_	0.620 98 Roofs, HSG A														
	6.260 59 Weighted Average														
	4.	170		66.6	1% Pervio	us Area									
	2.090 33.39% Impervious					ious Area									
	Тс	Leng	•	Slope	Velocity	Capacity	Description								
_	(min)	(fee	et)	(ft/ft)	(ft/sec)	(cfs)									
	7.0						Direct Entry								

Direct Entry,

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Summary for Subcatchment 18S: Area 3

Runoff 14.54 cfs @ 12.13 hrs, Volume= 1.162 af, Depth= 2.65"

	Area	(ac)	CN	Desc	Description							
	2.	2.910 39 >75% Grass cover, Good, HSG A										
	1.	020	98	Pave	ed roads w	/curbs & se	wers, HSG A					
	0.	790	98	Pave	ed parking,	HSG A						
0.550 98 Roofs, HSG A												
5.270 65 Weighted Average												
	2.	910		55.2	55.22% Pervious Area							
	2.360			44.7	8% Imperv	ious Area						
	Tc	Leng	th	Slope	Velocity	Capacity	Description					
	(min)	(fee	et)	(ft/ft)	(ft/sec)	(cfs)						
	8.8						Direct Entry.					

Summary for Subcatchment 24S: Area 18

Runoff = 11.64 cfs @ 12.09 hrs, Volume=

0.882 af, Depth= 1.75"

_	Area ((ac)	CN	Desc	ription									
	4.	310	39	>75%	>75% Grass cover, Good, HSG A									
	0.	760	98	Pave	ed roads w	/curbs & se	wers, HSG A							
0.490 98 Paved parking, HSG A														
0.390 98 Roofs, HSG A														
	0.	090	30	Woo	ds, Good,	HSG A								
	6.040 55 Weighted Average													
	4.	400		72.8	5% Pervio	us Area								
	1.	640		27.1	27.15% Impervious Area									
	Tc	Leng	ith	Slope	Velocity	Capacity	Description							
_	(min)	(fee	∋t)	(ft/ft)	(ft/sec)	(cfs)_								
	5.0						Direct Entry,							

Summary for Subcatchment 25S: Area 9

Runoff = 0.08 cfs @ 15.60 hrs, Volume=

0.054 af, Depth= 0.12"

A	Area (a	ac) (ON I	Desc	Description				
	0.0	30	30	Brus	h, Good, F	ISG A			
	5.350 30 Woods, Good, HSG A					HSG A			
	5.380 30 Weighted Average								
	5.380 100.00% Pervious Area					ous Area			
	_					_			
		Length	Slo	ope	Velocity	Capacity	Description		
(n	nin)	(feet)	(f	ft/ft)	(ft/sec)	(cfs)			
4	4.3	850	0.0	600	0.32		Lag/CN Method,		

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Summary for Subcatchment 26S: Area 5

0.26 cfs @ 17.42 hrs, Volume= Runoff

0.192 af, Depth= 0.12"

_	Area	(ac) (ON D	escription		
	1.	890	30 Bi	ush, Good,	HSG A	
	17.	360	30 W	oods, Good	d, HSG A_	
19.250 30 Weighted Average						
	19.	250	10	0.00% Per	vious Area	
	Tc	Length	Slop	e Velocity	Capacity	Description
_	(min)	(feet)	(ft/1	t) (ft/sec	(cfs)	
	152.0	1,600	0.014	0.18	3	Lag/CN Method,

Summary for Subcatchment 27S: Area 8

Runoff = 0.10 cfs @ 12.99 hrs, Volume=

0.058 af, Depth= 0.24"

_	Area	(ac)	CN	Desc	ription			
	1.	350	30	Woo	ds, Good,	HSG A		
*	1.	540	35	ease	ment			
	2.890 33 Weighted Average				hted Aver	age		
	2.890 100.00% Pervious Area							
	Tc	Length		Slope	Velocity	Capacity	Description	
_	(min)	(feet))	(ft/ft)	(ft/sec)	(cfs)		
	16.7	550	0.	1750	0.55		Lag/CN Method,	

Summary for Subcatchment 28S: Area 6

Runoff = 0.06 cfs @ 13.00 hrs, Volume=

0.034 af, Depth= 0.24"

_	Area	(ac)	CN	Desc	ription			
	0.	490	30	Brus	h, Good, F	ISG A		
	0.	320	30	Woo	ds, Good,	HSG A		
*	0.	860	35	ea se	ment			
	1.	1.670 33 Weighted Average				age		-
	1.670 100.00% Pervious Area			ous Area				
	Тс	Lengt		Slope	Velocity	Capacity	Description	
_	(min)	(fee	t)	(ft/ft)	(ft/sec)	(cfs)		
	17.2	35	0 (0.0800	0.34		Lag/CN Method.	

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Summary for Subcatchment 29S: Area 7b

Runoff

= 1

1.94 cfs @ 12.07 hrs, Volume=

0.152 af, Depth> 6.10"

Area	(ac)	CN	Desc	ription		
0.	300	98	Pave	ed parking,	, HSG A	
0.	300		100.0	00% impe	rvious Area	a
Tc (min)	Lengi (fee		Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0						Direct Entry,

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Summary for Subcatchment 33S: Area 7a

Runoff

2.68 cfs @ 12.14 hrs, Volume=

0.220 af, Depth= 3.52"

_	Area	(ac) C	N Des	cription					
	0.	330	98 Pav	Paved roads w/curbs & sewers, HSG A					
4	٠ 0.	120	98 wal	k					
	0.	300	39 >75	% Grass c	over, Good	HSG A			
	0.750 74 Weighted Average					•			
	0.	300	40.0	00% Pervio	us Area				
	0.450 60.00% Impervious Area				vious Area				
	Тс	Length	Slope	Velocity	Capacity	Description			
	(min)	(feet)	(ft/ft)	(ft/sec)	(cfs)				
	10.2	650	0.0700	1.07		Lag/CN Method,			
						-			

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Summary for Subcatchment 34S: Area 7

Runoff

2.26 cfs @ 12.09 hrs, Volume=

0.174 af, Depth= 1.67"

_	Area	(ac)	CN	Desc	cription		
*	1.	250	54	Ame	nity area		
	1.250 100.00% Pervious Area					ous Area	
	Tc (min)	Leng (fee		Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
_	5.0	(100	<i>-</i> ()	(tott)	(10300)	(013)	Direct Entry.

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Summary for Reach 4R: 36-inch culvert

[52] Hint: Inlet/Outlet conditions not evaluated

Inflow Area = 0.620 ac, 0.00% Impervious, Inflow Depth = 0.12" for 100-Year event

Inflow = 0.01 cfs @ 15.13 hrs, Volume= 0.006 af

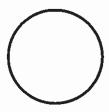
Outflow = 0.01 cfs @ 15.17 hrs, Volume= 0.006 af, Atten= 0%, Lag= 2.4 min

Routing by Stor-Ind+Trans method, Time Span= 3.00-60.00 hrs, dt= 0.03 hrs

Max. Velocity= 0.84 fps, Min. Travel Time= 1.2 min Avg. Velocity = 0.84 fps, Avg. Travel Time= 1.2 min

Peak Storage= 1 cf @ 15.15 hrs Average Depth at Peak Storage= 0.03' Bank-Full Depth= 3.00' Flow Area= 7.1 sf, Capacity= 66.70 cfs

36.0" Round Pipe n= 0.013 Length= 60.0' Slope= 0.0100 '/' Inlet Invert= 450.00', Outlet Invert= 449.40'



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Summary for Reach 5R: Natural channel

[61] Hint: Exceeded Reach 4R outlet invert by 0.01' @ 15.39 hrs

Inflow Area = 0.620 ac, 0.00% Impervious, Inflow Depth = 0.12" for 100-Year event

Inflow = 0.01 cfs @ 15.17 hrs, Volume= 0.006 af

Outflow = 0.01 cfs @ 15.61 hrs, Volume= 0.006 af, Atten= 1%, Lag= 26.7 min

Routing by Stor-Ind+Trans method, Time Span= 3.00-60.00 hrs, dt= 0.03 hrs

Max. Velocity= 0.44 fps, Min. Travel Time= 13.2 min Avg. Velocity = 0.44 fps, Avg. Travel Time= 13.2 min

Peak Storage= 8 cf @ 15.39 hrs Average Depth at Peak Storage= 0.01' Bank-Full Depth= 2.00' Flow Area= 6.0 sf, Capacity= 34.73 cfs

2.00' x 2.00' deep channel, n= 0.040 Earth, cobble bottom, clean sides Side Slope Z-value= 0.5 '/' Top Width= 4.00' Length= 350.0' Slope= 0.0269 '/' Inlet Invert= 449.40', Outlet Invert= 440.00'



G1746 Retreat Amherst Developed Conditions North Type III 24-hr 100-Year Rainfall=6.40" Printed 5/22/2014 Prepared by {enter your company name here}

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Summary for Reach 6R: Natural Channel

[62] Hint: Exceeded Reach 5R OUTLET depth by 0.03' @ 16.29 hrs [62] Hint: Exceeded Reach 10R OUTLET depth by 0.02' @ 16.23 hrs

10.020 ac, 0.00% Impervious, Inflow Depth = 0.12" for 100-Year event 0.15 cfs @ 15.90 hrs, Volume= 0.100 af Inflow Area =

Inflow

0.15 cfs @ 16.25 hrs, Volume= 0.100 af, Atten= 0%, Lag= 21.2 min Outflow

Routing by Stor-Ind+Trans method, Time Span= 3.00-60.00 hrs, dt= 0.03 hrs

Max. Velocity= 0.64 fps, Min. Travel Time= 11.7 min Avg. Velocity = 0.52 fps, Avg. Travel Time= 14.3 min

Peak Storage= 107 cf @ 16.05 hrs Average Depth at Peak Storage= 0.04' Bank-Full Depth= 2.00' Flow Area= 14.0 sf. Capacity= 94.09 cfs

6.00' x 2.00' deep channel, n= 0.040 Side Slope Z-value= 0.5 '/' Top Width= 8.00' Length= 450.0' Slope= 0.0222 '/' Inlet Invert= 440.00', Outlet Invert= 430.00'

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Summary for Reach 9R: 24-inch culvert

[52] Hint: Inlet/Outlet conditions not evaluated

Inflow Area = 1.420 ac, 0.00% Impervious, Inflow Depth = 0.12" for 100-Year event

Inflow = 0.02 cfs @ 15.51 hrs, Volume= 0.014 af

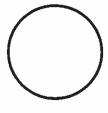
Outflow = 0.02 cfs @ 15.54 hrs, Volume= 0.014 af, Atten= 0%, Lag= 1.8 min

Routing by Stor-Ind+Trans method, Time Span= 3.00-60.00 hrs, dt= 0.03 hrs

Max. Velocity= 1.37 fps, Min. Travel Time= 0.7 min Avg. Velocity = 1.19 fps, Avg. Travel Time= 0.8 min

Peak Storage= 1 cf @ 15.45 hrs Average Depth at Peak Storage= 0.04' Bank-Full Depth= 2.00' Flow Area= 3.1 sf, Capacity= 29.21 cfs

24.0" Round Pipe n= 0.013 Length= 60.0' Slope= 0.0167 '/' Inlet Invert= 480.00', Outlet Invert= 479.00'



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Summary for Reach 10R: Natural channel

[61] Hint: Exceeded Reach 9R outlet invert by 0.02' @ 15.57 hrs

Inflow Area = 1.420 ac, 0.00% Impervious, Inflow Depth = 0.12" for 100-Year event

0.02 cfs @ 15.54 hrs, Volume= Inflow 0.014 af

0.02 cfs @ 15.71 hrs, Volume= 0.014 af, Atten= 0%, Lag= 10.4 min Outflow

Routing by Stor-Ind+Trans method, Time Span= 3.00-60.00 hrs, dt= 0.03 hrs

Max. Velocity= 0.82 fps, Min. Travel Time= 8.1 min Avg. Velocity = 0.72 fps, Avg. Travel Time= 9.2 min

Peak Storage= 11 cf @ 15.58 hrs Average Depth at Peak Storage= 0.02 Bank-Full Depth= 1.50' Flow Area= 3.4 sf, Capacity= 30.73 cfs

 $1.50' \times 1.50'$ deep channel, n= 0.040Side Slope Z-value= 0.5 '/' Top Width= 3.00' Length= 400.0' Slope= 0.0975 '/' Inlet Invert= 479.00', Outlet Invert= 440.00'



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Summary for Reach 11R: Box Culvert

[52] Hint: Inlet/Outlet conditions not evaluated
[61] Hint: Exceeded Reach 6R outlet invert by 0.01' @ 16.26 hrs

Inflow Area = 10.020 ac, 0.00% Impervious, Inflow Depth = 0.12" for 100-Year event

Inflow = 0.15 cfs @ 16.25 hrs, Volume= 0.100 af

Outflow = 0.15 cfs @ 16.26 hrs, Volume= 0.100 af, Atten= 0%, Lag= 0.8 min

Routing by Stor-Ind+Trans method, Time Span= 3.00-60.00 hrs, dt= 0.03 hrs

Max. Velocity= 2.25 fps, Min. Travel Time= 0.4 min Avg. Velocity = 2.25 fps, Avg. Travel Time= 0.4 min

Peak Storage= 4 cf @ 16.26 hrs Average Depth at Peak Storage= 0.01' Bank-Full Depth= 6.00' Flow Area= 72.0 sf, Capacity= 1,686.63 cfs

144.0" W x 72.0" H Box Pipe n= 0.013 Length= 60.0' Slope= 0.0167 '/' Inlet Invert= 430.00', Outlet Invert= 429.00'



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Summary for Reach 12R: Natural Channel

[62] Hint: Exceeded Reach 11R OUTLET depth by 0.08' @ 18.09 hrs [62] Hint: Exceeded Reach 16R OUTLET depth by 54.07' @ 19.20 hrs

Inflow Area = 48.180 ac, 9.24% Impervious, Inflow Depth > 0.27" for 100-Year event

Inflow = 1.15 cfs @ 17.74 hrs, Volume= 1.101 af

Outflow = 1.15 cfs @ 18.05 hrs, Volume= 1.101 af, Atten= 0%, Lag= 18.5 min

Routing by Stor-Ind+Trans method, Time Span= 3.00-60.00 hrs, dt= 0.03 hrs

Max. Velocity= 1.67 fps, Min. Travel Time= 11.0 min Avg. Velocity = 0.89 fps, Avg. Travel Time= 20.6 min

Peak Storage= 761 cf @ 17.86 hrs Average Depth at Peak Storage= 0.09' Bank-Full Depth= 2.00' Flow Area= 18.0 sf, Capacity= 197.78 cfs

8.00' x 2.00' deep channel, n= 0.040 Side Slope Z-value= 0.5 '/' Top Width= 10.00' Length= 1,100.0' Slope= 0.0536 '/' Inlet Invert= 429.00', Outlet Invert= 370.00'

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Summary for Reach 13R: 24-inch Culvert

[52] Hint: Inlet/Outlet conditions not evaluated

Inflow Area = 5.230 ac, 0.00% Impervious, Inflow Depth = 0.12" for 100-Year event

Inflow = 0.08 cfs @ 16.02 hrs, Volume= 0.052 af

Outflow = 0.08 cfs @ 16.03 hrs, Volume= 0.052 af, Atten= 0%, Lag= 0.8 min

Routing by Stor-Ind+Trans method, Time Span= 3.00-60.00 hrs, dt= 0.03 hrs

Max. Velocity= 2.02 fps, Min. Travel Time= 0.5 min Avg. Velocity = 1.61 fps, Avg. Travel Time= 0.6 min

Peak Storage= 2 cf @ 16.02 hrs Average Depth at Peak Storage= 0.08' Bank-Full Depth= 2.00' Flow Area= 3.1 sf, Capacity= 29.21 cfs

24.0" Round Pipe n= 0.013 Length= 60.0' Slope= 0.0167 '/' Inlet Invert= 481.00', Outlet Invert= 480.00'



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Summary for Reach 14R: Natural Channel

Inflow Area = 5.230 ac, 0.00% Impervious, Inflow Depth = 0.12" for 100-Year event

Inflow = 0.08 cfs @ 16.03 hrs, Volume= 0.052 af

Outflow = 0.08 cfs @ 16.46 hrs, Volume= 0.052 af, Atten= 0%, Lag= 25.5 min

Routing by Stor-Ind+Trans method, Time Span= 3.00-60.00 hrs, dt= 0.03 hrs

Max. Velocity= 0.60 fps, Min. Travel Time= 16.6 min Avg. Velocity = 0.49 fps, Avg. Travel Time= 20.3 min

Peak Storage= 79 cf @ 16.18 hrs Average Depth at Peak Storage= 0.03' Bank-Full Depth= 2.00' Flow Area= 10.0 sf. Capacity= 63.38 cfs

4.00' x 2.00' deep channel, n= 0.040 Side Slope Z-value= 0.5 '/' Top Width= 6.00' Length= 600.0' Slope= 0.0233 '/' Inlet Invert= 479.00', Outlet Invert= 465.00'



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Summary for Reach 15R: Box Culvert

[52] Hint: Inlet/Outlet conditions not evaluated

[61] Hint: Exceeded Reach 14R outlet invert by 0.01' @ 16.23 hrs

Inflow Area = 7.380 ac, 0.00% Impervious, Inflow Depth = 0.12" for 100-Year event

Inflow = 0.11 cfs @ 16.23 hrs, Volume= 0.074 af

Outflow = 0.11 cfs @ 16.27 hrs, Volume= 0.074 af, Atten= 0%, Lag= 2.4 min

Routing by Stor-Ind+Trans method, Time Span= 3.00-60.00 hrs, dt= 0.03 hrs

Max. Velocity= 1.71 fps, Min. Travel Time= 0.6 min Avg. Velocity = 1.71 fps, Avg. Travel Time= 0.6 min

Peak Storage= 4 cf @ 16.23 hrs Average Depth at Peak Storage= 0.01' Bank-Full Depth= 4.00' Flow Area= 32.0 sf, Capacity= 572.06 cfs

96.0" W x 48.0" H Box Pipe n= 0.013 Length= 60.0' Slope= 0.0167 '/' Inlet Invert= 465.00', Outlet Invert= 464.00'



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Summary for Reach 16R: Natural Channel

[62] Hint: Exceeded Reach 15R OUTLET depth by 0.01' @ 16.65 hrs

Inflow Area = 7.380 ac, 0.00% Impervious, Inflow Depth = 0.12" for 100-Year event

Inflow = 0.11 cfs @ 16.27 hrs, Volume= 0.074 af

Outflow = 0.11 cfs @ 16.75 hrs, Volume= 0.074 af, Atten= 1%, Lag= 28.6 min

Routing by Stor-Ind+Trans method, Time Span= 3.00-60.00 hrs, dt= 0.03 hrs

Max. Velocity= 0.94 fps, Min. Travel Time= 13.3 min Avg. Velocity = 0.94 fps, Avg. Travel Time= 13.3 min

Peak Storage= 88 cf @ 16.53 hrs Average Depth at Peak Storage= 0.02'

Bank-Full Depth= 2.00' Flow Area= 14.0 sf, Capacity= 217.43 cfs

6.00' x 2.00' deep channel, n= 0.040 Side Slope Z-value= 0.5 '/' Top Width= 8.00' Length= 750.0' Slope= 0.1187 '/' Inlet Invert= 464.00', Outlet Invert= 375.00'

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Summary for Reach 19R: Box Culvert

[52] Hint: Inlet/Outlet conditions not evaluated

[61] Hint: Exceeded Reach 12R outlet invert by 0.03' @ 18.06 hrs

Inflow Area = 48.180 ac, 9.24% Impervious, Inflow Depth > 0.27" for 100-Year event

Inflow = 1.15 cfs @ 18.05 hrs, Volume= 1.101 af

Outflow = 1.15 cfs @ 18.06 hrs, Volume= 1.101 af, Atten= 0%, Lag= 0.7 min

Routing by Stor-Ind+Trans method, Time Span= 3.00-60.00 hrs, dt= 0.03 hrs

Max. Velocity= 3.15 fps, Min. Travel Time= 0.3 min Avg. Velocity = 3.15 fps, Avg. Travel Time= 0.3 min

Peak Storage= 22 cf @ 18.05 hrs Average Depth at Peak Storage= 0.03' Bank-Full Depth= 10.00' Flow Area= 140.0 sf, Capacity= 4,217.47 cfs

168.0" W x 120.0" H Box Pipe n= 0.013 Length= 60.0' Slope= 0.0167 '/' Inlet Invert= 370.00', Outlet Invert= 369.00'



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Summary for Reach 21R: Natural Channel

[62] Hint: Exceeded Reach 19R OUTLET depth by 0.05' @ 24.03 hrs

Inflow Area = 59.600 ac, 10.22% Impervious, Inflow Depth > 0.24" for 100-Year event

Inflow = 1.22 cfs @ 17.96 hrs, Volume= 1.178 af

Outflow = 1.22 cfs @ 18.17 hrs, Volume= 1.178 af, Atten= 0%, Lag= 13.1 min

Routing by Stor-Ind+Trans method, Time Span= 3.00-60.00 hrs, dt= 0.03 hrs

Max. Velocity= 1.62 fps, Min. Travel Time= 8.8 min Avg. Velocity = 0.90 fps, Avg. Travel Time= 15.8 min

Peak Storage= 639 cf @ 18.03 hrs Average Depth at Peak Storage= 0.07' Bank-Full Depth= 2.00' Flow Area= 22.0 sf, Capacity= 264.68 cfs

10.00' x 2.00' deep channel, n= 0.040 Side Slope Z-value= 0.5 '/' Top Width= 12.00' Length= 850.0' Slope= 0.0600 '/' Inlet Invert= 369.00', Outlet Invert= 318.00'

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Summary for Reach 22R: 24-inch Culvert at Henry Street

[52] Hint: Inlet/Outlet conditions not evaluated

Inflow Area = 59.600 ac, 10.22% Impervious, Inflow Depth > 0.24" for 100-Year event

Inflow = 1.22 cfs @ 18.17 hrs, Volume= 1.178 af

Outflow = 1.22 cfs @ 18.18 hrs, Volume= 1.178 af, Atten= 0%, Lag= 0.2 min

Routing by Stor-Ind+Trans method, Time Span= 3.00-60.00 hrs, dt= 0.03 hrs

Max. Velocity= 6.10 fps, Min. Travel Time= 0.1 min Avg. Velocity = 3.08 fps, Avg. Travel Time= 0.2 min

Peak Storage= 9 cf @ 18.17 hrs Average Depth at Peak Storage= 0.23' Bank-Full Depth= 2.00' Flow Area= 3.1 sf, Capacity= 43.87 cfs

24.0" Round Pipe n= 0.013 Length= 46.0' Slope= 0.0376 '/' Inlet Invert= 315.63', Outlet Invert= 313.90'



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Summary for Reach 31R: Municipal Drain

[52] Hint: Inlet/Outlet conditions not evaluated

[81] Warning: Exceeded Pond 30P by 269.00' @ 3.00 hrs [81] Warning: Exceeded Pond 36P by 269.14' @ 11.46 hrs

Inflow Area = 3.970 ac, 18.89% Impervious, Inflow Depth = 0.90" for 100-Year event

Inflow = 2.68 cfs @ 12.14 hrs, Volume= 0.296 af

Outflow = 2.65 cfs @ 12.16 hrs, Volume= 0.296 af, Atten= 1%, Lag= 1.1 min

Routing by Stor-Ind+Trans method, Time Span= 3.00-60.00 hrs, dt= 0.03 hrs

Max. Velocity= 5.20 fps, Min. Travel Time= 0.6 min Avg. Velocity = 1.27 fps, Avg. Travel Time= 2.6 min

Peak Storage= 103 cf @ 12.15 hrs Average Depth at Peak Storage= 0.55'

Bank-Full Depth= 1.25' Flow Area= 1.2 sf, Capacity= 6.78 cfs

15.0" Round Pipe n= 0.024 Length= 200.0' Slope= 0.0375 '/' Inlet Invert= 348.00', Outlet Invert= 340.50'



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Summary for Pond 20P: Basin 1

Inflow Area = 11.530 ac, 38.59% Impervious, Inflow Depth = 2.35" for 100-Year event

Inflow = 28.41 cfs @ 12.12 hrs, Volume= 2.257 af

Outflow = 0.68 cfs @ 19.89 hrs, Volume= 0.735 af, Atten= 98%, Lag= 466.3 min

Primary = 0.68 cfs @ 19.89 hrs, Volume= 0.735 af

Routing by Stor-Ind method, Time Span= 3.00-60.00 hrs, dt= 0.03 hrs Peak Elev= 446.77' @ 19.89 hrs Surf.Area= 18,030 sf Storage= 79,073 cf

Plug-Flow detention time= 680.4 min calculated for 0.735 af (33% of inflow)

Center-of-Mass det. time= 544.7 min (1,400.2 - 855.6)

Volume	Inver	<u>t Avail.Sto</u>	rage Storage l	Description			
#1	440.00	102,70	00 cf Custom	Stage Data (Pr	ismatic) Listed below (Recalc)		
Elevation	-	Surf.Area	Inc.Store	Cum.Store			
(fee	et)	(sq-ft)	(cubic-feet)	(cubic-feet)			
440.0	00	5,335	0	0			
448.0	00	20,340	102,700	102,700			
Device	Routing	Invert	Outlet Devices	S			
#1	Primary	447.00'	Head (feet) 0.	20 0.40 0.60	70ad-Crested Rectangular Weir 0.80 1.00 1.20 1.40 1.60		
#2	Primary	440.00'	Coef. (English) 2.49 2.56 2.70 2.69 2.68 2.69 2.67 2.64 12.0" Round Culvert L= 75.0' Ke= 0.500 Inlet / Outlet Invert= 440.00' / 435.00' S= 0.0667 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf				
#3 #4	Device 2 Device 2	446.00' 447.00'	6.0" Vert. Orif 24.0" x 24.0" I	ice/Grate C= Horiz. Orifice/G flow at low hea	0.600 Frate C= 0.600		

Primary OutFlow Max=0.68 cfs @ 19.89 hrs HW=446.77' (Free Discharge)

-1=Broad-Crested Rectangular Weir (Controls 0.00 cfs)
-2=Culvert (Passes 0.68 cfs of 9.47 cfs potential flow)

2-Cuivert (1 asses 0.00 dis 01 3.47 dis potential flow)

-3=Orifice/Grate (Orifice Controls 0.68 cfs @ 3.47 fps)

-4=Orifice/Grate (Controls 0.00 cfs)

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Summary for Pond 23P: Basin 3

Inflow Area =

6.040 ac, 27.15% Impervious, Inflow Depth = 1.75" for 100-Year event

Inflow

0.882 af

Outflow

11.64 cfs @ 12.09 hrs, Volume= 0.19 cfs @ 24.02 hrs, Volume=

0.024 af, Atten= 98%, Lag= 716.1 min

Primary

0.19 cfs @ 24.02 hrs, Volume=

0.024 af

Routing by Stor-Ind method, Time Span= 3.00-60.00 hrs, dt= 0.03 hrs

Peak Elev= 383.03' @ 24.02 hrs Surf.Area= 13,755 sf Storage= 37,789 cf

Plug-Flow detention time= 737.3 min calculated for 0.024 af (3% of inflow)

Center-of-Mass det. time= 567.1 min (1,438.5 - 871.4)

Volume	Inv	vert Ava	ail.Storage	Storage	Description			
#1	380.	00'	51,550 cf	Custom	Stage Data (Pri	smatic) Listed	pelow (Recalc)	
Elevatio		Surf.Area (sq-ft)		nc.Store bic-feet)	Cum.Store (cubic-feet)			
380.0 384.0		11,200 14,575		0 51,550	0 51,550			
Device	Routing	I	nvert Ou	ıtlet Device	<u>s</u>			
#1	Primary	38		.0' long Sha		tangular Weir	2 End Contraction(s)	

Primary OutFlow Max=0.16 cfs @ 24.02 hrs HW=383.03' (Free Discharge) 1=Sharp-Crested Rectangular Weir (Weir Controls 0.16 cfs @ 0.55 fps)

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Summary for Pond 30P: Amenity Area Parking Lot Basin

[82] Warning: Early inflow requires earlier time span

Inflow Area = 0.300 ac,100.00% Impervious, Inflow Depth > 6.10" for 100-Year event

Inflow = 1.94 cfs @ 12.07 hrs, Volume= 0.152 af

Outflow = 0.02 cfs @ 20.76 hrs, Volume= 0.009 af, Atten= 99%, Lag= 521.6 min

Primary = 0.02 cfs @ 20.76 hrs, Volume= 0.009 af

Routing by Stor-Ind method, Time Span= 3.00-60.00 hrs, dt= 0.03 hrs Peak Elev= 83.03' @ 20.76 hrs Surf.Area= 0.066 ac Storage= 0.144 af

Plug-Flow detention time= 984.7 min calculated for 0.009 af (6% of inflow)

Center-of-Mass det. time= 564.5 min (1,314.1 - 749.6)

Volume	Invert	Avail.Storage	Storage Description
#1	79.00'	6.777 af	38.00'W x 54.00'L x 60.00'H Prismatoid Z=1.0
			17.041 af Overall - 0.100 af Embedded = 16.942 af x 40.0% Voids
#2	79.00'	0.100 af	57.0" D x 245.0'L Pipe Storage Inside #1
	-	6.876 af	Total Available Storage
			•
Device	Routing	Invert O	utlet Devices
#1	Primary	83.00' 12	.0" Round Culvert L= 40.0' Ke= 0.500
	-	Inl	et / Outlet Invert= 83.00' / 68.00' S= 0.3750 '/' Cc= 0.900
		n=	: 0.013, Flow Area= 0.79 sf
#2	Primary	85.00' 24	.0" x 24.0" Horiz. Orifice/Grate
		l ir	mited to weir flow at low heads

Primary OutFlow Max=0.00 cfs @ 20.76 hrs HW=83.03' (Free Discharge)

1=Culvert (Inlet Controls 0.00 cfs @ 0.57 fps)

-2=Orifice/Grate (Controls 0.00 cfs)

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Summary for Pond 36P: Amenity Area

Inflow Area = 1.250 ac, 0.00% Impervious, Inflow Depth = 1.67" for 100-Year event

Inflow = 2.26 cfs @ 12.09 hrs, Volume= 0.174 af

Outflow = 0.07 cfs @ 19.14 hrs, Volume= 0.033 af, Atten= 97%, Lag= 422.9 min

Primary = 0.07 cfs @.19.14 hrs, Volume = 0.033 af

Routing by Stor-Ind method, Time Span= 3.00-60.00 hrs, dt= 0.03 hrs Peak Elev= 83.12' @ 19.14 hrs Surf.Area= 0.084 ac Storage= 0.145 af

Plug-Flow detention time= 562.6 min calculated for 0.033 af (19% of inflow)

Center-of-Mass det. time= 408.8 min (1,283.2 - 874.3)

Volume	Invert	Avail.Storage	Storage Description
#1	79.00'	0.118 af	15.00'W x 150.00'L x 5.00'H Prismatoid Z=1.0
			0.357 af Overall - 0.061 af Embedded = 0.296 af x 40.0% Voids
#2	79.00'	0.061 af	57.0" D x 150.0'L Pipe Storage Inside #1
	•	0.179 af	Total Available Storage

Device	Routing	Invert	Outlet Devices
#1	Primary	83.00'	12.0" Round Culvert L= 120.0' Ke= 0.500
	•		Inlet / Outlet Invert= 83.00' / 68.00' S= 0.1250 '/' Cc= 0.900
			n= 0.013, Flow Area= 0.79 sf
#2	Primary	85.00'	24.0" x 24.0" Horiz. Orifice/Grate
			Limited to weir flow at low heads

Primary OutFlow Max=0.06 cfs @ 19.14 hrs HW=83.12' (Free Discharge)

-1=Culvert (Inlet Controls 0.06 cfs @ 1.17 fps)

-2=Orifice/Grate (Controls 0.00 cfs)